Chapter 21
Containers

2101. Applicability

The regulations in this Chapter apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as specified in LAC 33:V.1501, or if the container is empty (see LAC 33:V.109).

A. Containers not exempted from these regulations shall be considered hazardous and shall be disposed of or treated by an acceptable waste disposal or treatment method.

Containers received by Clean Harbors Colfax, LLC that are not exempted from the hazardous waste regulations consist of casings or other devices that cannot safely be emptied using the practices (i.e., normal detonation) commonly employed to remove materials from that type of container. During the thermal treatment process, these containers and their contents are placed in the burner assemblies, ignited, and allowed to burn.

If the material within the container was a listed hazardous waste, the residue (including the container) remains a listed waste in accordance with the "derived from" rule. Residue from burning containers that held characteristic waste is commingled. Composite samples from this waste are analyzed in accordance with the WAP to determine disposal options. These wastes are then managed in accordance with the determination made following review of analytical data.

B. If a hazardous waste is emptied from a container, the residue remaining in the container is not considered a hazardous waste if the container is empty as defined in LAC 33:V.109. In that event, management of the container is exempt from the requirements of this Chapter.

In the event that an empty container meets the definition specified in LAC 33:V.109, management of that container will be exempt from hazardous waste regulations.

C. Empty containers sent to a reclaimer are considered product, and thus are not subject to these rules and regulations. Residue from the reclaimer's operations must be disposed of in a permitted facility.

Empty containers sent to a reclaimer are considered product, and thus are not subject to these rules and regulations. Residue from the reclaimer's operations will be disposed of in a permitted facility.

D. The storage of hazardous waste prohibited from land disposal must also be in accordance with the requirements of LAC 33:V.2205.

Hazardous waste stored at the site that is prohibited from land disposal will be stored in accordance with the requirements of LAC 33:V.2205.

2103. Condition of Containers

A. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this Chapter.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the facility will transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this Chapter.

2105. Compatibility of Waste with Containers

A. The owner or operator must use a container made of or lined with materials which will not react with, or be incompatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

The wastes are stored at the facility in DOT approved containers. These DOT approved containers are designed to be compatible with the reactive compound contained within. The containers containing the wastes are constructed of inert materials that do not react with the reactive waste.

2107. Management of Containers

A. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

Containers holding hazardous waste will be managed such that they are always closed during storage, except when it is necessary to add or remove waste.

B. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

A container holding hazardous waste will not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

2109. Inspections

A. At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system. Remedial action as described in LAC 33:V.1513 shall be taken.

At least weekly, Clean Harbors Colfax, LLC will inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system. Remedial action as described in LAC 33:V.1513 shall be taken when needed to ensure compliance with the requirements for proper storage of containerized hazardous wastes.

B. All containers must be stacked in such a fashion that each container identification label can be read from the access aisle.

All containers stored in the storage magazines are stacked in such a fashion that each container identification label can be read from the access aisle.

C. All inspection records must be maintained according to the recordkeeping requirements of LAC 33:V.1529.

All inspection records will be maintained in accordance with the recordkeeping requirements of LAC 33:V.1529.

2111. Containment

A. Container storage areas must have a containment system that is designed and operated in accordance with LAC 33:V.2111.B except as otherwise provided by LAC 33:V.2111.C.

Containers are stored in fully enclosed storage magazines that are constructed to the standards established for such storage magazines established by the Bureau of Alcohol, Tobacco, and Firearms.

B. A containment system must be designed and operated as follows:

1. *a base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;*

The design of the storage magazines is shown in Appendix B (Drawing # 110). The floor of each magazine consists of plywood overlying steel. The floor rests on steel channels which in turn rest upon a solid concrete slab that is free of gaps or cracks and that is adequately impervious.

The floor of the preparation building and ash storage area; the covered concrete burner pads; and the covered truck staging/parking consists of a solid concrete base that is free of gaps or cracks and that is adequately impervious.

2. *the base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;*

The storage magazines are provided with interior wall vents that prevent the accumulation of moisture. Storage magazines 8, 9, and 10 are used to store liquid waste, and are constructed of steel with continuously welded joints to provide containment should leakage occur.

The floor slabs of the concrete burner pads; the truck staging/parking areas; and the preparation building and ash storage area are gently sloped to drain liquids to a central location for removal.

The containers that are used to temporarily store residual ash for shipment are elevated above the floor surface. Any liquids that could accumulate in this area would not come into contact with the ash stored in the roll-off containers.

3. *the containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;*

The basic design details of the storage magazines are shown on Appendix B. The storage magazines are approximately 10 feet by 20 feet in area and 8 feet high. The floors, walls, roof, and doors are constructed of high tensile steel covered with two layers of hardwood plywood. The magazines contain vents on the interior to prevent the build-up of extreme heat and pressure or accumulation of moisture. The vent openings are screened. The magazines are grounded against lightning

strikes. Magazines Nos. 8, 9 and 10 have 12-inch high thresholds and vertical extensions for floor vents to contain possible spills. The height of the thresholds and floor vent extensions are based on a design spill of 10% of the maximum stored waste volume as required.

The covered staging area at the entrance of Magazine Nos. 8, 9, and 10 measures 107 feet long by 27 feet wide. The maximum truckload unloading in this area has been determined to be 80 - 55 gallon drums of liquid wastes. The 16-inch high concrete walls are designed to contain 10% of the volume of a maximum truckload of drums and moderate amounts of wind blown rainwater with 3-inches of freeboard remaining. Design details of the staging area are shown on Appendix B. Containment calculations for this area are included in Appendix S of this permit application. The facility utilizes portable containment skids for use when liquids are stored in these magazines. Each skid provides adequate secondary containment for the drums placed on it.

The covered truck staging/parking area measures 107 feet long by 64 feet wide. Four truck parking spaces are provided with individual containment for the separation of incompatible wastes in the event of a leak. The containment curbing is constructed of concrete with a total height of 6 inches (See Section B-B, Drawing # 108, Appendix B). Each of the four parking areas contains a sump for rainwater collection. The 6 inch concrete curbs are designed to contain 10% of a maximum truckload of drums and moderate amounts of wind blown rainwater with approximately 3-inches of freeboard. Containment calculations for this area are included in Appendix S of this permit application.

4. *run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in LAC 33:V.2111.B.3 to contain any run-on which might enter the system;*

Run-on is prevented by grading the ground surface so that surface runoff is directed away from the magazines; the preparation building and ash storage area; the concrete burner pads; and staging/parking areas.

5. *spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system; and*

Collection of spills, discussed in Sections 517.J.2 and 1505.C, is part of the housekeeping requirements for storage magazines. Inspection for, and collection of, any possible leaked or spilled material will be part of the inspection as detailed in Section 1509. Containment areas will be inspected no less than weekly for leaks, spills, and rainwater collection as detailed in Section 1509.

6. *if the collected material is a hazardous waste, it must be managed as a hazardous waste in accordance with all applicable requirements.*

If the collected material is a hazardous waste, it will be managed as a hazardous waste in accordance with all applicable requirements.

C. *Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by LAC 33:V.2111.B, except as provided by LAC 33:V.2111.D or provided that:*

1. *the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or*

2. *the containers are elevated or are otherwise protected from contact with accumulated liquid.*

All permitted storage areas at the facility have more than adequate secondary containment systems, regardless of whether or not they are use for storage of wastes that do not contain free liquids.

D. *Storage areas that store containers holding the wastes listed below must have a containment system defined by LAC 33:V.2111.B even when these wastes do not contain free liquids: F020, F021, F022, F023, F026, and F027.*

No wastes listed in LAC 33:V.2111.D are stored at the facility.

2113. Special Requirements for Ignitable or Reactive Wastes

A. *Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility property line. (See LAC 33:V.1517 for additional requirements or LAC 33:V.4321 for additional requirements for interim status facilities.)*

The storage units, the preparation building and ash storage area, and treatment units for handling the wastes are located no closer than 660 feet to the property lines of the facility. This distance exceeds the 50-feet requirement of LAC 33:V.2113 and satisfies the requirements of LAC 33:V.1517. The buffer zone limits, the locations of the storage magazines, preparation building, and treatment units are shown on Appendix B.

2115. Special Requirements for Incompatible Wastes

A. Incompatible wastes, or incompatible wastes and materials, must not be placed in the same container unless LAC 33:V.1517 or LAC 33:V.4321 for interim status facilities is complied with.

Incompatible wastes are shipped to the facility in separate containers as required by the Department of Transportation. As part of the procedures for handling incoming wastes, the waste activity records are checked to determine which storage magazine should receive the newly accepted wastes. Incompatible wastes are stored in separate storage magazines and are treated separately.

B. Hazardous wastes must not be placed in an unwashed container that previously held an incompatible waste or material.

The wastes remain in DOT approved shipping containers from the time they are accepted at the facility until they are treated. The waste containers are not opened until they are prepared and treated. In the unlikely event that some of the wastes may require transferring to another container, they will only be placed in cleaned containers that do not contain wastes to prevent potential mixing of incompatible wastes.

C. A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, other device, or approved management technique.

Incompatible wastes are identified as part of the procedures for monitoring incoming waste, as discussed in Sections 1517 and 1527. Incompatible wastes, such as detonators, will be stored in separate magazines to prevent accidental reaction with other wastes. Magazines storing incompatible wastes are separated by at least 210 feet. Magazines 8, 9, and 10 contain either wastes packed in non-hazardous liquids or liquid wastes. The waste activity reports will note the location of all wastes onsite to prevent accidental mixing of incompatible wastes. This information will become part of the operating records for the facility.

D. The owner or operator must place the results of each waste analysis and trial test and any documented information regarding compatibility testing in the operating record of the facility.

As discussed in the Waste Analysis Plan (Appendix G) required by Section 1519 of this permit application, no sampling or testing of the incoming waste is conducted due to safety considerations. The facility relies on existing chemical and physical waste analyses provided by the waste generators or by knowledgeable agencies. These analyses are used to determine the compatibility of the wastes onsite and will be referenced in the waste activity records as described in Section 1527. The waste activity reports will become a part of the operating record for the facility.

Documentation regarding waste compatibility will be retained in the operating record of the facility.

2117. Closure

A. At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with LAC 33:V.109.Hazardous Waste.6 that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V.Chapters 9-43.

Closure activities and procedures are described in Chapter 35 of this permit application. These activities and procedures are identical to those performed as part of the standard operating routine of the facility, as described in Section 517.T.7. After the final load of waste is removed from the storage units, prepared at the preparation building, and treated in the open burners, the operating units will be visually examined to check for untreated wastes. Such wastes will be collected and thermally treated. Residues that may be generated during the final thermal treatment will be collected, containerized, and shipped offsite for disposal at a permitted facility. The containers cleaned by burning during treatment will be collected for disposal at a permitted facility. The storage units, collection equipment, the preparation building and ash storage area, and the truck staging/parking areas will be decontaminated according to the closure plan. The concrete burners will be cleaned utilizing water. After decontamination and cleaning, the facility may leave these structures and equipment onsite or may remove them at its discretion.

2119. Air Emission Standards

A. The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of LAC 33:V.Chapter 17.

The facility will manage all hazardous waste placed in a container in accordance with the applicable requirements of LAC 33:V.Chapter 17. Additional details are included in Chapter 17 of this application.

CHAPTER 24

HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

2401. Applicability

A. The requirements of this Chapter apply to owners or operators who store munitions and explosive hazardous wastes, except as LAC 33:V.1501 provides otherwise.

[NOTE: Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (LAC 33:V.Chapter 18), tanks (LAC 33:V.Chapter 19), or containers (LAC 33:V.Chapter 21). See LAC 33:V.5309 for storage of waste military munitions.]

Clean Harbors Colfax, LLC, [CH (CO)] stores hazardous waste munitions and explosives. CH (CO) will abide by the applicable sections of this Chapter.

2403. Design and Operating Standards

A. Hazardous waste munitions and explosives storage units must be designed and operated with containment systems, controls, and monitoring that:

1. minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated runoff to the soil, groundwater, surface water, and atmosphere;

All ten CH (CO) storage units have containment systems that minimize the potential for detonation of those waste munitions and minimizes the potential for a release of hazardous wastes or waste by-products to the surrounding environment.

The basic design details of the storage magazines are shown on Drawings 109 and 110, Appendix B. The storage magazines are approximately 10 feet by 20 feet in area and 8 feet high. The floors, walls, roof, and doors are constructed of high tensile steel and covered with hardwood. The high tensile steel is coated with a non-reactive paint to protect the steel from corrosion. The magazines are ventilated to prevent the build-up of extreme heat and pressure or accumulation of moisture. The vent openings are screened. The magazines are grounded against lightning strikes. Magazines numbers 8, 9, and 10 have 12-inch high thresholds and vertical extensions for floor vents to contain possible spills. The height of the thresholds and floor vent extensions are based on a design spill of 10% of the maximum stored waste volume.

Storage Magazines are designed in accordance with the requirements established by the Bureau of Alcohol Tobacco and Firearms (ATF). As shown in Drawings 100 and 103, Appendix B, the storage and treatment areas are located a sufficient distance apart based on ATF requirements to limit the potential for an incident at one location to spread to the other. Other measures to minimize potential spread of fire or

explosion include fire lanes around the treatment and storage areas; visual monitoring of the burn area, preparation, and treatment activities; development of a contingency plan and emergency response procedures in coordination with offsite local and state emergency response agencies; proper inspection and maintenance of onsite operating equipment; and established buffer zones at least 660 feet wide between site boundaries and waste storage and treatment units.

2. *provide a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;*

All CH (CO) storage units have a steel shell and containment surrounding each area that provides a primary barrier designed to contain hazardous waste. All outdoor Storage Magazines have 100 feet of separation. Magazine numbers 8, 9, and 10, that are used to store liquid hazardous wastes, also have a secondary containment area that provides an additional barrier to contain that waste. All Storage Magazines meet or exceed standards established by the ATF.

3. *for wastes stored outdoors, provide that the waste and containers will not be in standing precipitation;*

The facility does not store wastes outdoors, but it does operate small storage buildings called magazines. These storage units are elevated with a sloping gradient to prevent the units and their contents from being in standing precipitation even during heavy rainfall and flooding.

The storage magazines are designed to prevent water or other liquids from potentially contacting the stored waste. The preventive measures are discussed below.

The containers of wastes are stacked on the floors of the storage magazines. The floors are also elevated approximately six inches above the ground surface. The interior walls of the magazines are equipped with vents to prevent moisture accumulation. Pallets or other objects are stacked away from the vents. The ground surface is graded adjacent to the units to direct surface water away from the magazines.

The covered staging area at the entrance of Magazine numbers 8, 9, and 10 measures 107 feet long by 27 feet wide. The maximum unloading capacity in this area has been determined to be 80 - 55 gallon drums of liquid wastes. The 6-inch high concrete walls are designed to contain 10% of this volume, plus moderate amounts of wind blown rainwater with 3-inches of freeboard remaining. Containment calculations for this area are included in Appendix S of this permit application.

The storage magazines are fully enclosed units. The inside walls are equipped with vents to prevent the accumulation of moisture within the magazines. The ground surface around the magazines is graded to direct surface runoff away from the storage units. The floors of the magazines are elevated approximately six inches above grade. Within the magazines, the containers of wastes are stacked on the floor of the storage unit.

4. *for liquid wastes, provide a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area or vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken (e.g., additional containment, such as overpacking or removal from the waste area); and*

All liquid hazardous wastes at CH (CO) are stored at Storage Units 8, 9, or 10. A secondary containment area surrounds these three storage units. See Drawings 109 and 110, Appendix B. Additionally all liquid wastes are stored in hazmat spill containment receptacles within 55 - gallon drums. Containment calculations are included in Appendix S.

5. *provide monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.*

Appendix H is the facility Inspection Plan. The Inspection Plan allows for the operations monitoring of the controls and containment systems at CH (CO). The Inspection Plan also has the inspection and maintenance procedures designed to minimize adverse releases that may adversely impact human health or the environment.

B. Hazardous waste munitions and explosives stored under this Chapter may be stored in one of the following:

1. earth-covered magazines, must be:

a. constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

b. designed and constructed as follows:

i. to be of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

ii. to provide working space for personnel and equipment in the unit; and

iii. to withstand movement activities that occur in the unit; and

c. located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion;

CH (CO) does not utilize earth-covered magazines at the facility. Therefore, this section does not apply.

2. above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion;

CH (CO) has ten above-ground storage magazines located throughout the facility. Seven are located outside and three are located in the Truck Staging Building. See Drawings 100, 101, 109, and 110, Appendix B. These magazines are located 100 feet from one another are surrounded by a steel shell and internal wood lining. All these designs minimize the propagation and effects of an explosion.

The floors, walls, roof, and doors are constructed of high tensile steel and covered with hardwood. The high tensile steel is coated with a non-reactive paint to protect the steel from corrosion. The magazines are ventilated to prevent the build-up of extreme heat and pressure or accumulation of moisture. The vent openings are screened. The magazines are grounded against lightning strikes.

3. outdoor or open storage areas must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

No open storage areas are utilized. Therefore, this section does not apply.

C. Hazardous waste munitions and explosives must be stored in accordance with a standard operating procedure specifying procedures to ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of LAC 33:V.1507, the preparedness and prevention procedures of LAC 33:V.1511, and the contingency plan and emergency procedures requirements of LAC 33:V.1513, then these procedures will be used to fulfill those requirements.

All hazardous waste munitions stored at CH (CO) are stored in accordance with current federal and Louisiana regulations. Standard operating procedures are

contained in the facility's Contingency Plan, Appendix I. All safety, security, and emergency procedures are contained in the Contingency Plan. Inspection and operations monitoring is in the facility's Inspection Plan, Appendix H.

D. Hazardous waste munitions and explosives must be packaged to ensure safety in handling and storage.

CH (CO) will package hazardous waste munitions and explosives to ensure safe handling and storage.

E. Hazardous waste munitions and explosives must be inventoried at least annually.

All hazardous waste munitions and explosives kept on-site at the facility will be inventoried continuously. No hazardous waste remains on-site for longer than one year.

F. Hazardous waste munitions and explosives and their storage units must be inspected and monitored as necessary to ensure the explosives' safety and to ensure that there is no migration of contaminants out of the unit.

CH (CO) regularly inspects all Storage Units and stored munitions and explosives to ensure the safety and security of those stored products in accordance with the facility's Inspection Plan, Appendix H.

2405. Closure and Post-Closure Care

A. At closure of a magazine or unit that stored hazardous waste under this Chapter, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste and manage them as hazardous waste unless LAC 33:V.109.Hazardous Waste.6 applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in LAC 33:V.Chapters 35 and 37, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

CH (CO) will abide by all the applicable portions of this section. For details see the Closure Plan, Appendix L.

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection A of this Section, the owner or

operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he or she must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.2521).

In the event that it is unable to achieve clean closure, CH (CO) will comply with the applicable portions of this section.

Chapter 32

Miscellaneous Units

3201. Applicability

A. The requirements in this Chapter apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as LAC 33:V.1501 provides otherwise.

Clean Harbors Colfax, LLC treats hazardous waste in a miscellaneous unit; therefore, this chapter applies.

3203. Environmental Performance Standards

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions must include those requirements of LAC 33:V.Chapters 3, 5, 7, 17, 19, 21, 23, 25, 27, 29, 31, 4301.F, H, 4302, 4303 and 4305, all other applicable requirements of LAC 33:V.Subpart 1, and of 40 CFR 63 Subpart EEE and 40 CFR 146 that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

General details of the location, design, construction, operation, maintenance, and eventual closure of the miscellaneous unit are presented below to demonstrate that human health and the environment will be protected. Specific responses will follow after citing each portion of the regulation.

Clean Harbors Colfax, LLC is located approximately 1/2 mile north of Highway 71 on LA Highway 471 in Grant Parish, Louisiana. A USGS map showing the facility location is provided in Appendix B. The facility is currently engaged in the storage and open burning of reactive waste under a permit issued by the Louisiana Department of Environmental Quality and the Environmental Protection Agency. The miscellaneous unit at the facility consists of open burners used for thermal treatment of reactive waste. There are no disposal units at the facility.

The thermal treatment area is constructed on a 700' by 130' reinforced concrete slab (6" thick). The thermal treatment unit consists of twenty (20) concrete curbed treatment pads atop the slab, each equipped with an interchangeable burner assembly. The treatment pads are approximately 50 feet apart. The burner assemblies consist either of an open steel pan or a steel-lined concrete burn chamber.

The open steel pans are constructed of 3/16-inch (minimum) steel with approximately eight-inch high sidewalls. The concrete burn chambers are constructed of 48-inch (inside diameter) reinforced concrete pipe. They are four feet in height, and equipped with a steel mesh cover. Each of the treatment units is equipped with a retractable roof structure to prevent rainfall accumulation.

Security, communications, onsite emergency equipment, and procedures are described in Section 1513 of the Part B permit application.

Wastes are transferred from the storage area to the preparation building located adjacent to the treatment units using a utility vehicle and trailer. The wastes are loaded and unloaded from the trailer by appropriate means considering the type of material being unloaded.

The waste is opened and prepared to facilitate combustion and placed in a compatible container. The wastes are placed in the burners and soaked with diesel fuel. Diesel fuel is a low-volatile, slow burning fuel that helps to control the combustion process. The slow burning process also helps to prevent the potential of a vigorous explosion that might otherwise cause the waste to escape the unit. The amount of waste to be burned in each unit varies and is dependent on the nature of a given waste material, but precise records are maintained in the operating record as to the amounts and types of wastes burned in each burner each operating day. Multiple units may be used simultaneously, but typically, only two or three are operated at any given time.

Each batch of waste requires approximately 7 to 8 minutes to burn. The maximum temperature obtained during the treatment process is achieved at a temperature of approximately 2,400 degrees Fahrenheit in a non-controlled air feed environment such as open trough burning. After approximately 40 minutes, the cooled treatment residues are visually inspected to ensure they do not contain untreated waste. Subsequently, they are removed from the burners, and placed in appropriate containers until they are shipped offsite for disposal at a proper facility. The residues will be separated according to whether or not the waste was treated in burners designated for characteristic waste or burners designated for listed waste.

The inspection schedule for the treatment units as well as the support facilities is presented in Appendix H. The schedule is designed to permit a timely response to prevent or minimize potential malfunctions that could result from such factors as deterioration with age or improper operation. The goal in preparing the inspection schedule is to ensure that all operating and emergency equipment, structures, and systems are functioning and can be relied on, particularly in an emergency situation.

The schedules contain the frequency of inspection or maintenance activity, the item of equipment and the component of that equipment item that needs to be examined in addition to a general inspection. The inspection and maintenance schedules, results, and repair records will become part of the operating record.

Potential hazardous material release would be associated with spilling untreated wastes outside containment areas or treatment process areas. Spills in these areas would most likely occur during handling by facility personnel. Such spills are addressed by 1) visual inspections of these areas each time they are used and 2) collecting all observed spilled wastes for immediate thermal treatment.

The threat to human health and the environment would be associated with the occurrence of an unplanned or uncontrolled fire or explosion at the facility. Such hazards are unlikely but could possibly occur from improper handling or storage of the wastes, improper use of onsite equipment, or equipment malfunction. The inspection and maintenance schedules are designed to minimize this potential by visually examining the treatment units; storage magazines; the containers of waste; onsite transfer equipment; tools used to prepare the wastes for treatment; emergency response equipment; communications; and other operating equipment. The frequency of the inspections and maintenance requirements are based on manufacturer's recommendations when available. All maintenance and repairs will be completed prior to any future processing of waste on impaired equipment to ensure proper functioning of equipment and systems at all times.

A. prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the groundwater or subsurface environment, considering:

1. the volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

The wastes to be handled at the facility are those wastes exhibiting the characteristic of reactivity (D003), except for those wastes listed as reactive by reason of cyanide or sulfide content. In addition, the reactive wastes treated may also include other waste codes as indicated in the Part I application.

The facility's through put capacity is based on the air permit issued by LDEQ.

The storage capacity of the treatment facility is approximately 50,000 pound net explosive weight in the magazines. In addition, wastes on site could be in burners waiting to be ignited, on trucks waiting to be unloaded, or undergoing preparation for burning. The maximum net explosive weight of wastes on site considering storage and these handling steps is 55,950 pounds.

The physical and chemical characteristics of the wastes treated in the units during the trial burns are described in section 2.0 of the document entitled "Final Source Characterization Plan for the R&D Thermal Treatment System" prepared by

ENSR, September 1990 (Appendix Y). This document provides a representative description of the wastes that will be treated in the units.

In regard to analysis of reactive waste, the Institute of Makers of Explosives made the following observation in their response to EPA comments (December 1988) on the RCRA Guidance Manual For Permitting Commercial Explosives Industry Open Burning/Open Detonation Facilities.

> "A critical aspect of this guidance manual and in general regarding disposal of explosive waste in the explosives industry is the issue of safety. IME has generally made the conservative assumption that waste containing elements of explosive nature presents the risk of an explosion. IME is not aware of a test method, nor has EPA promulgated a test method, that determines reactivity and that allows for a completely accurate determination of whether waste containing constituents of an explosive nature presents the risk of explosion upon disposal. It is such a risk that mandates the use of OB/OD since disposal through other means presents the risk of an explosion with a related threat to worker safety. The industry has always made worker protection the highest priority and would be very uncomfortable in departing from that position now."

The facility will gather sufficient information on incoming waste streams to allow proper storage and treatment without compromising worker safety. Chemical and physical analyses of each type of waste are generally provided by the generator. These analyses or analyses obtained from other reputable sources, such as the Department of Defense, will be referenced in the incoming waste records for each type of waste accepted at the facility. This information will become part of the operating record for the facility.

The waste analysis plan incorporates the following procedures:

- Each load of waste delivered to the facility will be visually inspected to verify the type and quantities of reactives listed on the shipping manifest.
- Profiles will be checked to verify the items received are accurately identified.
- Wastes that are not reactive, or cannot be correlated to a profile, will be rejected. Protocols described in the response to LAC 33:V.919 will be followed whenever this occurs.

The estimated emission rates of gases and particulates from treatment in the units are given in Appendix C. Appendix Y provides a description of how the pollutant emission rates were estimated through a combination of ambient air monitoring

and dispersion modeling. The air permit application contains calculations for estimating emissions of NO_x, CO and HCl.

Emission rates were below levels which would pose a potential hazard to human health via the atmospheric dispersion. Based upon this result the treatment units will not have a human health impact via groundwater or subsurface soil. However, hydrogeological features of the site were assessed through the groundwater assessment included in Appendix U.

The construction of the burner assemblies as previously described provides the necessary safeguards to minimize the entrance of rainwater and preclude surface run-on. Minimizing the entrance of rainwater, precluding run-on into the treatment process, and controlling runoff from the treatment area will insure that waste constituents are not transported to the ground water or subsurface environment. Furthermore, under the controlled burning methods used at the facility and based on the findings of the "Final Technical Support Document for the R&D Thermal Treatment System" dated April 1991 (Appendix Y), minimal potential for migration of treated residues as air particulates will minimize the potential for impacting the ground water.

Certain burner assemblies are designated for the treatment of listed hazardous waste only. Ash remaining after treating listed waste is removed from the burner assembly and taken to a designated container for storage. These residues are shipped to a permitted hazardous waste disposal facility according to the original classification of the waste prior to thermal treatment. Residues generated from the thermal treatment of characteristic hazardous waste are stored in a separate container. These residues are subsequently analyzed to determine whether they exhibit a characteristic of a hazardous waste in accordance with the Waste Analysis Plan, and managed accordingly.

Refer to Appendix U for additional details.

2. *the hydrologic and geologic characteristics of the unit and the surrounding area;*

A groundwater assessment was conducted as a requirement of the initial permit. That assessment has been completed and is included in Appendix U.

Considering the control measures for the treatment units and the fact that positive drainage is provided around the entire unit, negligible impact to the ground water and subsurface environment is expected. Further groundwater monitoring has not been required.

3. *the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater;*

Water from wells within two (2) miles of the facility show the groundwater in the area to have a high iron content (see response to 3203.A.5 below) Quality data for these wells, when available, is in Appendix U. A groundwater assessment was conducted as a requirement of the initial permit. That assessment has been completed and is included as Appendix U.

4. the quantity and direction of groundwater flow;

This information is presented in the Groundwater Assessment (Appendix U).

5. the proximity to and withdrawal rates of current and potential groundwater users;

Water wells within a two mile radius are listed in Table 3. Well locations are shown on Drawing # 102 in Appendix B. (Land Use Map).

6. the patterns of land use in the region;

An aerial photograph of the facility and adjacent land is presented on Drawing # 102 in Appendix B. The facility is located on the aerial photographs for reference. The properties adjacent to the facility are undeveloped and well-vegetated with trees and brush. The nearest residence is located more than 900 feet beyond the operating area boundaries. The nearest schools, hospitals, libraries, recreational, or public lands are located at least three miles from the operating area. The nearest major roadway is LA Highway 471, which is located along the north portion of the west site boundary. Drawing # 103 in Appendix B provides a representation of the facility boundary and the land use patterns within a two mile radius of the facility boundary.

7. the potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

As discussed in the response to 3203.A.1 above, the burners are constructed in such a manner as to preclude the migration of waste constituents due to unlikely contact with rainfall and storm water run-on. Furthermore, as required under the Clean Water Act, a storm water pollution prevention plan has been developed and implemented for the facility. This plan will be routinely updated for the facility to describe specific actions taken at the facility to minimize the potential for off-site migration of waste constituents. During operation of the units,

monitoring of the storm water will be conducted in accordance with the NPDES permit requirement.

Furthermore, based on the "Final Technical Support Document for the R&D Thermal Treatment System" dated April 1991 (Appendix Y), minimal migration of waste constituents, as air particulates, will occur from the burners that will have any potential for impacting the ground water. Soil monitoring, conducted in accordance with the plan in Appendix Z, continues to be done annually.

8. the potential for health risks caused by human exposure to waste constituents; and

The facility completed a risk assessment as part of the "Final Technical Support Document for the R&D Thermal Treatment System" dated April 1991 (Appendix Y). No unacceptable risks were identified. A copy of the Annual Soil Monitoring Report (2002) is provided in Appendix V.

9. the potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

The facility has installed a six-foot high wire fence along the facility boundaries. The six-foot high fence is equipped with a six-foot high metal gate that is locked when the facility is closed. The properties adjacent to the facility boundaries are undeveloped, heavily vegetated, and have limited access. The facility is manned 24 hours per day by a guard or administrative or operations personnel.

A six-foot high fence separates the operations area and office area. The six-foot high fence is equipped with a six-foot high gate that is locked when treatment operations are in progress or when the facility is closed.

The storage magazines, preparation building and burners are enclosed by a six-foot high chain-link perimeter fence with barbed wire on top. The storage magazines are locked in accordance with the standards established by the Bureau of Alcohol, Tobacco, and Firearms for storage magazines. A 100-foot wide clear zone is located between the burn units and the enclosure fences.

Access by birds and other wildlife is not a critical concern of this facility because wastes are securely enclosed and stored in the magazines until treatment. The magazines are locked and located within a six-foot high fence enclosure.

The security procedures, equipment, and signs are described in Section 1507 of the permit application. The entrance gate to the facility and the gate into the operating area are provided with adequate lighting which is activated by photo-

electric sensors. All gates are locked when the facility is closed, when facility personnel are not present in a given area, or when preparation or treatment activities are in progress.

Clear zones are provided around the storage magazines and the treatment areas for security and to provide access for emergency personnel and equipment, in the unlikely event they are necessary.

B. prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water or wetlands or on the soil surface, considering:

1. the volume and physical and chemical characteristics of the waste in the unit;

The response to Section 3203.A.1 provides documentation to adequately respond to this requirement.

2. the effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

The thermal treatment area is constructed on a 700' by 130' reinforced concrete slab (6" thick). The thermal treatment units consist of twenty (20) concrete curbed treatment pads atop the slab, each equipped with an interchangeable burner assembly. The burner assemblies consist either of an open steel pan or a steel-lined concrete burn chamber. The open steel pans are constructed of 3/16-inch (minimum) steel with eight-inch high sidewalls. The concrete burn chambers are constructed of 48-inch (inside diameter) reinforced concrete pipe. They are four feet high and equipped with a 14-gauge steel cover plate. Each of the treatment units is equipped with a retractable roof structure to prevent rainfall accumulation.

The construction of the open burners and burner troughs as presented above provides the necessary safeguards to minimize the entrance of rainwater and prevent surface run-on. Minimizing the entrance of rainwater and preventing run-on into the treatment process will insure that waste constituents are not transported to the surface water or the soil surface. Furthermore, under the controlled burning methods used at the facility and based on the findings of the "Final Technical Support Document for the R&D Thermal Treatment System" dated April 1991, negligible migration of waste constituents will occur from the burners that will have a potential for impacting surface water or surface soils.

The facility has applied for and obtained coverage under the NPDES baseline general stormwater permit. During operation of the units, routine monitoring of

the storm water is conducted which will indicate any unlikely migration of wastes that occurs.

3. *the hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;*

A topographic map of the facility is shown on Drawing #'s 102 and 103 in Appendix B. The map shows the facility boundaries, the adjacent property for a distance of at least 1,000 feet beyond the site boundaries and topographic contours at an interval of 10 feet. The map is drawn at a scale of 1-inch equals 200 feet.

4. *the patterns of precipitation in the region;*

Appendix O provides documentation received from the Louisiana Office of State Climatology, which describes various climatic variables for the Alexandria-Colfax area. Data provided in the attachment include: the average monthly precipitation for Alexandria over the 30 year period 1961 through 1990.

5. *the quantity, quality, and direction of groundwater flow;*

This information is presented in Appendix U.

6. *the proximity of the unit to surface waters;*

A drainage channel and French drain has been constructed along the southwestern perimeter of the operations area to intercept run-on.

There are no wetlands in the operating area. There is a pond located near the facility office which is not affected by the normal operations conducted at the facility due to the drainage patterns onsite.

The 100-year Floodplain limits for the geographic area containing the treatment facility and the facility location are indicated on the copy of the FEMA map that is included in Appendix O. The FEMA map that includes the site is Community No. 220076, Panel 0115C, Flood Insurance Rate Map, dated November 16, 1995. As indicated on the FEMA map, the facility is outside of the 100-Year Floodplain limits.

Surface runoff leaves the facility via natural drainage swales as indicated by the ground surface contours shown on the topographic map. The nearest permanently flowing stream is located over 1,000 feet from the facility boundaries.

The operations of the facility do not significantly alter the natural drainage pattern and flow of surface water across the site.

7. *the current and potential uses of nearby surface waters and any water quality standards established for those surface waters;*

The nearest permanently flowing stream is located over 1,000 feet from the facility boundaries. Any potential use of the nearby surface water has been un-impacted by the facility's operations. The facility does not anticipate that it will have any impacts on these waters in the future.

Surface drainage from the site enters stream segment 101301 - Rigolette Bayou. Water quality criteria for this stream segment, according to LAC 33:IX.1123, Table 3 are as follows:

chlorides - 25 mg/L

sulfate - 25 mg/L

dissolved oxygen - 5.0 mg/L

pH - 6.0 to 8.5

bacterial criteria - primary contact recreation

temperature - 32°C

total dissolved solids – 100mg/L

Nearby surface waters may be utilized for recreational purposes, navigation, and as a source of drinking water. Section 3 of Appendix U contains more details regarding nearby surface waters.

8. *the existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;*

Appendix X provides a description of the soil types that are characteristic of the soils surrounding the facility. In addition, Appendix D of the "Final Technical Support Document for the R&D Thermal Treatment System" (located in Appendix Y of this permit renewal application) dated April 1991 provides analytical data from background soil samples collected for the soil sampling portion of the study.

9. *the patterns of land use in the region;*

An aerial photograph of the facility and adjacent land is presented on Drawing #'s 100 and 101 in Appendix B. The facility boundary is recognizable due to clearing along the fence lines. The properties adjacent to the facility are undeveloped and well-vegetated with trees and brush. The nearest residence is located more than 900 feet beyond the operating area boundaries. The nearest schools, hospitals, libraries, recreational, or public lands are located at least three miles from the operating area. The nearest major roadway is LA Highway 471, which is located along the north portion of the west site boundary. Drawing # 100 in Appendix B provides a representation of the facility boundary and the land use patterns within a two mile radius of the facility boundary.

10. the potential for health risks caused by human exposure to waste constituents; and

The facility has completed a risk assessment for air exposure as part of the "Final Technical Support Document for the R&D Thermal Treatment System" dated April 1991 (Appendix Y). Air exposure was the only pathway determined to be of concern; the referenced study demonstrated that no unacceptable risks exist.

11. the potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

The facility has installed a six-foot high wire fence along the facility boundaries. The six-foot high fence is equipped with a six-foot high metal gate that is locked when the facility is closed. The properties adjacent to the boundaries of the facility are undeveloped, heavily vegetated, and have limited access. The facility is manned 24 hours per day by a guard or administration or operations personnel.

A six-foot high fence separates the operations area and office area. The six-foot high fence is equipped with a six-foot high rail gate that is locked when treatment operations are in progress or when the facility is closed.

The storage magazines, preparation building and burners are enclosed by a six-foot high chain-link perimeter fence with barbed wire on top. The storage magazines are locked in accordance with the standards established by the Bureau of Alcohol, Tobacco, and Firearms for storage magazines. A 100-foot wide clear zone is located between the burn units and the enclosure fences.

Access by birds and other wildlife is not a critical concern of this facility because wastes are securely stored in the magazines until treatment. The magazines are locked and located within a six-foot high fence enclosure. During treatment of the

wastes (which only occurs during daylight hours), the noise and the presence of fire generally keeps birds and other wildlife from venturing too close to the unit.

The security procedures, equipment, and signs are described in Section 1507 of the permit application. The entrance gate to the facility and the gate into the operating area are provided with adequate lighting which is activated by photo-electric sensors. All gates are locked when the facility is closed, when facility personnel are not present in a given area, or when preparation or treatment activities are in progress.

Clear zones are provided around the storage magazines and the treatment areas for security and to provide access for emergency personnel and equipment, if necessary.

C. prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

1. the volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols, and particulates;

The physical and chemical characteristics of the wastes treated in the units are discussed in the response to 3203.A.1. The volume of wastes treated is also discussed in the above referenced response.

The estimated emission rates of gases and particulates from treatment in the units are provided in Appendix C, the current air permit issued by LDEQ.

Additional details are provided in Appendix U.

2. the effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

The Air Quality Permit (Appendix C) contains operating conditions that govern the amount of waste treated. These restrictions reduce emissions of hazardous constituents to the air.

Based on the risk assessment, the following performance standards have been developed: (1) the design and operating requirements are specified in the air permit; (2) air monitoring requirements are specified in the air permit; and (3) emissions of hazardous constituents to the air will be in accordance with the air permit.

3. the operating characteristics of the unit;

Operating characteristics are provided in the air permit issued by LDEQ in Appendix C.

4. *the atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;*

The atmospheric and meteorologic characteristics of the unit and the surrounding area are provided in Appendix O. Meteorological data were obtained from the Office of State Climatology. The topographic characteristics of the surrounding land are shown on Drawing #'s 102, 103, and 104 in Appendix B.

5. *the existing quality of the air, including other sources of contamination and their cumulative impact on the air;*

Section 3.0 of Appendix Y describes the ambient air monitoring results. For each trial run, the ambient air was monitored upwind and downwind of the units. The upwind results provide an analysis of the quality of the air in the area. No major sources of contamination have been identified in the vicinity.

6. *the potential for health risks caused by human exposure to waste constituents; and*

An inhalation health risk assessment was performed by ENSR to evaluate the potential human health effects from the emissions from the facility. The results of this risk assessment are provided in section 4.0 of Appendix Y. The risk assessment was conducted in accordance with the "Final Risk Assessment Protocol for R&D Thermal Treatment Facility" dated April 1991 prepared by ENSR. The results state, "based on this conservative risk assessment, the potential health hazards associated with the R&D [former name of the facility] thermal treatment system are small" (page 4-14 of Appendix Y).

7. *the potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.*

The air pathway was deemed to be the only potential significant migration pathway. Human exposure via the atmosphere was considered to be the critical risk associated with the treatment process and this exposure was evaluated through the approved risk assessment protocol. The concrete pad constructed around the

entire "open burning" area, provides protection of surrounding soil, vegetation and surface waters from any air contaminants. Appendix Y contains correspondence related to the risk assessment protocol.

3205. Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action

A. Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with LAC 33:V.909, 1509, 1511.D, 1529.D-E, 3203, and 3322, as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

The inspection procedures as well as the response to releases of hazardous waste or hazardous constituents are discussed in Chapter 15 (Sections 1509 and 1523) and Appendix H of this application.

3207. Closure and Post-Closure Care

A. A miscellaneous unit that is a disposal unit must be maintained in a manner that complies with LAC 33:V.3203 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or groundwater that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of LAC 33:V.3203 during post-closure care. The post-closure plan under LAC 33:V.3523 must specify the procedures that will be used to satisfy this requirement.

A closure plan for clean closure is provided in the section addressing Chapter 35. Because clean closure is the goal, no post closure is anticipated.

B. For a miscellaneous unit that is not a disposal unit, at closure the owner or operator must remove or decontaminate all waste residues, contaminated system components (liners, etc.), contaminated subsoils, structures, and equipment contaminated with waste and leachate and manage them as hazardous waste unless LAC 33:V.109.Hazardous Waste.5 applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for miscellaneous units must meet all of the requirements specified in LAC 33:V.Chapters 35 and 37.

This facility is a miscellaneous unit that is not a disposal unit. The facility anticipates that the closure activities described in the Closure Plan will accomplish the requirements of this regulation. As a part of the closure activities, the facility will remove or decontaminate all waste residues, contaminated components, contaminated subsoils, structures, and equipment contaminated with waste and

manage them as hazardous waste unless alternate decontamination procedures are approved by the LDEQ.

C. *If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection B of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:*

1. *close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.2521); in addition, for the purposes of closure, post-closure, and financial responsibility, such a miscellaneous unit is then considered to be a landfill and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapters 35 and 37; or*

   The facility acknowledges this requirement and will comply with it in the event that the decontamination efforts described in the Closure Plan are unsuccessful or if they do not meet with the Department's satisfaction.

2. *perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.*

   To the extent that a risk assessment becomes necessary, the facility will comply with this requirement.

Chapter 33

Ground Water Protection

3301. Applicability

A. Except as provided in LAC 33:V.3301.C, the regulations in this Chapter apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in LAC 33:V.3301.B for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

In accordance with LAC 33:V.3301.C.4, the administrative authority has not required that the facility comply with regulations for releases into the uppermost aquifer under LAC 33:V.Chapter 33.

The regulations for miscellaneous units, Chapter 32, do not specifically require groundwater monitoring. The facility has conducted an environmental assessment (Appendix U) in accordance with its current permit. This environmental assessment demonstrated that the facility meets the environmental performance standards of Section 3203. Based on past evaluations of the site, periodic soil monitoring (but not groundwater monitoring) has been required. Furthermore, annual soil monitoring shows no impact. The most recent annual Soil Monitoring Report (2002) is included in Appendix V.

Since the currently permitted operating unit is classified as a miscellaneous unit, the requirements of LAC 33:V. 3205 and 3322 are applicable in lieu of LAC 33:V.3303-3321.

The "Old Burn Unit," which has undergone partial closure, is also classified as a miscellaneous unit. As required by LAC 33:V.3205 and 3322, a "Risk Based Corrective Action Evaluation Workplan" (1998) has been submitted to the administrative authority for review and approval. A copy of this workplan is included in Appendix M.

B. All solid waste management units must comply with the requirements in LAC 33:V.3322. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of LAC 33:V.3303-LAC 33:V.3321 in lieu of LAC 33:V.3322 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of LAC 33:V.3322 apply to regulated units.

Both the currently permitted operating units and the "Old Burn Unit" will comply with the requirements of LAC 33:V.3322. There are no existing or planned surface impoundments, waste piles, land treatment units or landfills at the facility. Therefore, the requirements of LAC 33:V.3303-3321 are not applicable.

C. The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this Chapter if:

1. the owner or operator is exempted under LAC 33:V.1501; or

2. he operates a unit which the administrative authority finds:

a. *is an engineered structure;*

b. *does not receive or contain liquid waste or waste containing free liquids;*

c. *is designed and operated to exclude liquid, precipitation, and other run-on and run-off;*

d. *has both inner and outer layers of containment enclosing the waste;*

e. *has a leak detection system built into each containment layer;*

f. *the owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods; and*

g. *to a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period;*

3. *the administrative authority finds, pursuant to LAC 33:V.2719.D, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of LAC 33:V.2711 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under LAC 33:V.3301.C can only relieve an owner or operator of responsibility to meet the requirements of this Chapter during the post-closure care period; or*

4. *the administrative authority finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under LAC 33:V.3521. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under LAC 33:V.3301.C on assumptions that maximize the rate of liquid migration;*

In accordance with LAC 33:V.3301.C.4, the administrative authority has not required that the facility comply with regulations for releases into the uppermost aquifer under LAC 33:V., Chapter 33.

The regulations for miscellaneous units, Chapter 32, do not specifically require groundwater monitoring. The facility has conducted an environmental assessment of the soil and groundwater (Section II of Appendix U) in accordance with its current permit. As required by LAC 33:V.3301.C, the modeling assessment scenarios were based on assumptions that maximize the potential rate of liquid migration. This environmental assessment demonstrated that the facility meets the environmental performance standards of Section 3203. Based on past evaluations of the site, periodic soil monitoring (but not groundwater monitoring) has been required. Furthermore, annual soil monitoring shows no impact. The most recent annual Soil Monitoring Report (2002) is included in Appendix V.

Since the currently permitted operating unit is classified as a miscellaneous unit, the requirements of LAC 33:V. 3205 and 3322 are applicable in lieu of LAC 33:V.3303-3321.

The "Old Burn Unit," which has undergone partially closure, is also classified as a miscellaneous unit. As required by LAC 33:V.3205 and 3322, a "Risk Based Corrective

Action Evaluation Workplan" (1998) has been submitted to the administrative authority for review and approval. A copy of this workplan is included in Appendix M.

5. *he designs and operates a pile in compliance with LAC 33:V.2301.C.*

There are no existing or planned waste piles at the facility. Therefore, LAC 33:V.2301.C is not applicable.

D. *The regulations under this Chapter apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this Subpart:*

1. *do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;*

As described in the response to LAC 33:V.3507, at closure, the facility intends to remove and/or decontaminate all waste, waste residues, contaminated containment system components, and contaminated subsoils. This activity will eliminate any potential post-closure threats to human health and the environment as a result of the operation and closure of the facility. Therefore, the regulations of this Chapter do not apply.

2. *apply during the post-closure care period under LAC 33:V.Chapter 35, Subchapter B post-closure requirements if the owner or operator is conducting a detection monitoring program under LAC 33:V.3317;*

3. *apply during the compliance period under LAC 33:V.3313 if the owner or operator is conducting a compliance monitoring program under LAC 33:V.3319 or a corrective action program under LAC 33:V.3321.*

E. *Regulations in this Chapter may apply to miscellaneous units when necessary to comply with LAC 33:V.3203-3207.*

As described in responses to LAC 33:V.3203-3207, the facility has conducted an environmental assessment of the soil and groundwater (Section II of Appendix U) in accordance with its current permit. As required by LAC 33:V.3301.C, the modeling assessment scenarios were based on assumptions that maximize the potential rate of liquid migration. This environmental assessment demonstrated that the facility meets the environmental performance standards of Section 3203. Based on past evaluations of the site, periodic soil monitoring (but not groundwater monitoring) has been required. Furthermore, annual soil monitoring shows no impact. The most recent annual Soil Monitoring Report (2002) is included in Appendix V. Therefore, the regulations in this Chapter are not necessary for the permitted miscellaneous units to comply with LAC 33:V.3203-3207.

F. *The regulations of this Chapter apply to all owners and operators subject to the requirements of LAC 33:V.305.H when the department issues either a post-closure permit or an enforceable*

document (as defined in LAC 33:V.305.H) at the facility. When the department issues an enforceable document, references in this Chapter to "in the permit" mean "in the enforceable document."

G. The administrative authority may replace all or part of the requirements of this Chapter applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit (or in an enforceable document as defined in LAC 33:V.305.H) where the administrative authority determines that:

1. the regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2. it is not necessary to apply the groundwater monitoring and corrective action requirements of this Chapter because alternative requirements will protect human health and the environment.

The facility does not have nor is it requesting a post-closure permit. There is no corrective action ongoing for any of the regulated units. Therefore, Subsections 3301.F-G are not applicable to the facility. However, the facility acknowledges that the administrative authority may apply these subsections if it deems necessary.

3303. Required Programs

A. Owners and operators subject to this Chapter must conduct a monitoring and response program as follows.

1. Whenever hazardous constituents under LAC 33:V.3307 from a regulated unit are detected at the compliance point under LAC 33:V.3311, the owner or operator must institute a compliance monitoring program under LAC 33:V.3319. "Detected" is defined as statistically significant evidence of contamination as described in LAC 33:V.3317.F.

2. Whenever the ground water protection standard under LAC 33:V.3305 is exceeded, the owner or operator must institute a corrective action program under LAC 33:V.3321. "Exceeded" is defined as statistically significant evidence of increased contamination as described in LAC 33:V.3319.D.

3. Whenever hazardous constituents under LAC 33:V.3307 from a regulated unit exceed concentration limits under LAC 33:V.3309 in ground water between the compliance point under LAC 33:V.3311 and the downgradient facility property boundary, the owner or operator must institute a corrective action program under LAC 33:V.3321.

4. In all other cases, the owner or operator must institute a detection monitoring program under LAC 33:V.3317.

B. The administrative authority will specify in the facility permit the specific elements of the monitoring and response program. The administrative authority may include one or more of the programs identified in LAC 33:V.3303.A in the facility permit as may be necessary to protect human health and the environment. The administrative authority will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the administrative authority will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

C. *In addition, all permitted facilities where pre-existing ground water contamination continues to be present shall be required to institute compliance monitoring as required in LAC 33:V.3319 of this Chapter and corrective action programs as required in LAC 33:V.3321 of this Chapter. In no case shall free phase or mobile hazardous constituents be unmitigated. Hazardous constituents shall be isolated, reduced or stabilized consistent with the application of good engineering practices and best practical technology.*

D. *All permits for facilities with pre-existing ground water contamination shall contain a permit condition containing the concentration limits of hazardous constituents established consistent with LAC 33:V.3305, 3307, and 3309. In no case shall other than background concentration limits be listed in the initial permit. Compliance with corrective action programs required in LAC 33:V.3303, 3319, and 3321 will constitute a permitted variance. Corrective action programs shall be reviewed annually and may be based on predictive computer modeling. Alternate concentrations provided in LAC 33:V.3309.A or B may be set by permit amendment should the original concentration limits be unattainable within 36 months.*

3305. Ground Water Protection Standard

A. *The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under LAC 33:V.3307 detected (as defined in LAC 33:V.3303.A.1) in the ground water from a regulated unit do not exceed the concentration limits under LAC 33:V.3309 in the uppermost aquifer underlying the waste management area beyond the point of compliance under LAC 33:V.3311 during the compliance period under LAC 33:V.3313. The administrative authority will establish this ground water protection standard in the facility permit when hazardous constituents have been detected (as defined in LAC 33:V.3303.A.1) in the ground water.*

B. *The ground water monitoring system shall consist of necessary wells, at least one hydraulically upgradient, to monitor ground water moving toward the facility, and all the necessary number of wells downgradient to monitor ground water leaving the facility. The wells shall be located to intercept contamination at the earliest possible occurrence. Well locations and completion depths must be selected to assure that all probable contaminant flow-paths are monitored. The wells shall be cased, and the casings shall be adequately sealed so that contaminants cannot be introduced from the surface or from one aquifer to another within the well bore, and so that only one water bearing sand is sampled per well. The entire ground water monitoring system must be approved by the administrative authority.*

C. *The owner or operator of the facility shall develop and adhere to a ground water sampling and analysis plan, and shall immediately advise the department when significant changes in ground water quality are determined and verified.*

D. *Leachate*

1. *The leachate monitoring system shall contain a method and device to secure samples, and determine leakage at two locations in each unit where the system is required as follows:*

   a. *at the low point inside the barrier (liner) encased in sand, or other porous material, ensuring that leachate from all contents will percolate to the low point. Provision for pumping out all leachate which gathers inside this barrier shall be made; and*

   b. *at a low point under the barrier (liner) and encased in a porous layer over a dense (at least three feet of clay at 1 x 10^{-7} cm/sec) underlayment, or natural soil, to verify the integrity of the liner.*

2. *The system shall permit sampling from an accessible surface location.*

3. *An equivalent system acceptable to the administrative authority may be installed in existing facilities.*

E. Air. Installed, or available portable air monitoring devices shall be located at all sites involving: incineration, landfill, or treatment facilities. An installed air monitoring system (triangular grid) with continuous recording shall be installed at all commercial sites.

F. Sampling. Samples shall be taken from all required monitoring systems before waste is introduced (for new sites) to provide adequate base-line data. Sampling shall be done quarterly, and complete records shall be maintained at the site for examination by the administrative authority.

3307. Hazardous Constituents

A. The administrative authority will specify in the facility permit the hazardous constituents to which the ground water protection standard of LAC 33:V.3305 applies. Hazardous constituents are constituents identified in Table 1 of LAC 33:V.Chapter 31 that have been detected in ground water in the uppermost aquifer underlying a regulated unit, and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the administrative authority has excluded them under LAC 33:V.3307.B.

B. The administrative authority upon sufficient demonstration by the permittee may exclude any Table 1, LAC 33:V.Chapter 31 constituents from the list of hazardous constituents specified in the facility permit if he finds that these constituents are not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the administrative authority will consider the following:

1. *potential adverse effects on ground water quality, considering:*

   a. *the physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;*

   b. *the hydrogeological characteristics of the facility and surrounding land;*

   c. *the quantity of ground water and the direction of ground water flow;*

   d. *the proximity and withdrawal rates of ground water users;*

   e. *the current and future uses of ground water in the area;*

   f. *the existing quality of ground water including other sources of contamination, and their cumulative impact on the ground water quality;*

   g. *the potential for health risks caused by human exposure to waste constituents;*

   h. *the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and*

   i. *the persistence and permanence of the potential adverse effects; and*

2. *potential adverse effects on hydraulically-connected surface water quality, considering:*

   a. *the volume and physical and chemical characteristics of the waste in the regulated unit;*

   b. *the hydrogeological characteristics of the facility and surrounding land;*

   c. *the quantity and quality of ground water, and the direction of ground water flow;*

   d. *the patterns of rainfall in the region;*

e. the proximity of the regulated unit to surface waters;

f. the current and future uses of surface waters and any waters in the area, and any water quality standards established for those surface waters;

g. the existing quality of surface water, including other sources of contamination, and the cumulative impact on surface water quality;

h. the potential for health risks caused by human exposure to waste constituents;

i. the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

j. the persistence and permanence of the potential adverse effects.

C. In making any determination under LAC 33:V.3307.B of this Section about the use of ground water in the area around the facility, the administrative authority will consider any identification of underground sources of drinking water and exempted aquifers.

3309. Concentration Limits

A. The administrative authority will specify in the facility permit concentration limits in the groundwater for hazardous constituents established under LAC 33:V.3307. The concentration of a hazardous constituent:

1. must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or

2. for any of the constituents listed in Table 1 of this Section, must not exceed the respective value given in that table if the background level of the constituent is below the value given; or

3. must not exceed an alternative limit established by the administrative authority under Subsection B of this Section.

Table 1. Maximum Concentration of Constituents for Ground Water Protection

Constituent	*Maximum Concentration*[1]
Arsenic	*0.05*
Barium	*1.0*
Cadmium	*0.01*
Chromium	*0.05*
Lead	*0.05*
Mercury	*0.002*
Selenium	*0.01*
Silver	*0.05*
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo-5, 8-demethano napthalene)	*0.0002*
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	*0.004*
Methoxychlor (1,1,1-Trichloro-2, 2-bis) (p-methoxyphenylethane)	*0.01*
Toxaphene ($C_{10}H_{10}Cl_6$, Technical chlorinated camphene, 67-69 percent chlorine)	*0.005*
2,4-D (2,4-Dichlorophenoxyacetic acid)	*0.1*
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	*0.01*

[1] *Milligrams per liter*

B. The administrative authority may establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. The establishment of such alternative concentration limits shall be in accordance with LAC 33:I.Chapter 13. In establishing alternate concentration limits, the administrative authority will consider the following factors:

1. potential adverse effects on groundwater quality, considering:

a. the physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

b. the hydrogeological characteristics of the facility and surrounding land;

c. the quantity of groundwater and the direction of groundwater flow;

d. the proximity and withdrawal rates of groundwater users;

e. the current and future uses of groundwater in the area;

f. the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

g. the potential for health risks caused by human exposure to waste constituents;

h. the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

i. the persistence and permanence of the potential adverse effects; and

2. potential adverse effects on hydraulically-connected surface water quality, considering:

a. the volume and physical and chemical characteristics of the waste in the regulated unit;

b. the hydrogeological characteristics of the facility and surrounding land;

c. the quantity and quality of groundwater and the direction of groundwater flow;

d. the patterns of rainfall in the region;

e. the proximity of the regulated unit to surface waters;

f. the current and future uses of surface waters in the area and any water quality standards established for those surface waters;

g. the existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

h. the potential for health risks caused by human exposure to waste constituents;

i. the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

j. the persistence and permanence of the potential adverse effects.

C. In making any determination under Subsection B of this Section about the use of groundwater in the area around the facility, the administrative authority will consider any identification of underground sources of drinking water and exempted aquifers identified in the permit application under LAC 33:V.Chapter 3. Any identification of underground sources of drinking water shall be in accordance with LAC 33:I.Chapter 13.

3311. Point of Compliance

A. The administrative authority will specify in the facility permit the point of compliance at which the ground water protection standard of LAC 33:V.3305.A applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area or the delineated zone of contamination that extends down into the uppermost aquifer underlying the regulated units or the delineated zone of contamination.

B. The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

1. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

2. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

3313. Compliance Period

A. The administrative authority will specify in the facility permit the compliance period during which the ground water protection standard of LAC 33:V.3305 applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period.)

B. The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of LAC 33:V.3319.

C. If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in Subsection A of this Section, the compliance period is extended until the owner or operator can demonstrate that the ground water protection standard of LAC 33:V.3305 has not been exceeded for a period of three consecutive years.

3315. General Ground Water Monitoring Requirements

[NOTE: The owner or operator must comply with the following requirements for any ground water monitoring program developed to satisfy LAC 33:V.3317, 3319, or 3321.]

A. The ground water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths, to yield ground water samples from the uppermost aquifer that fulfill the following requirements.

1. The samples must represent the quality of ground water that has not been affected by leakage from a regulated unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

a. hydrogeologic conditions do not allow the owner or operator to determine which wells are hydraulically upgradient; and

b. sampling at other wells will provide an indication of background ground water quality that is representative or more representative than that provided by the upgradient wells.

2. The samples must represent the quality of water passing the point of compliance.

3. The samples must allow for the detection (as defined in LAC 33:V.3303.A.1) of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

B. If a facility contains more than one regulated unit, separate ground water monitoring systems are not required for each regulated unit, if provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point for hazardous constituents for the regulated units.

C. All monitoring wells must be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing must be screened or perforated, and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water.

D. The ground water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground water quality below the waste management area. At a minimum, the program must include procedures and techniques for:

1. sample collection;

2. *sample preservation and shipment;*

3. *analytical procedures; and*

4. *chain of custody control.*

E. The ground water monitoring program must include sampling and analytical methods that are appropriate for ground water sampling, and that accurately measure hazardous constituents in ground water samples.

F. The ground water monitoring program must include a determination of the ground water surface elevation each time ground water is sampled.

G. In detection monitoring or where appropriate in compliance monitoring, data on each indicator parameter and on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the administrative authority. This sampling procedure shall be:

1. *a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or*

2. *an alternate sampling procedure proposed by the owner or operator and approved by the administrative authority.*

H. The owner or operator will specify one of the following statistical methods to be used in evaluating ground water monitoring data for each indicator parameter and hazardous constituent that, upon approval by the administrative authority, will be specified in the unit permit. The statistical test chosen shall be conducted separately for each indicator parameter and hazardous constituent in each well. Where practical quantification limits (PQLs) are used in any of the following statistical procedures to comply with LAC 33:V.3315.I.5, the PQL must be proposed by the owner or operator and approved by the administrative authority. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in LAC 33:V.3315.I.

1. *A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.*

2. *An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.*

3. *A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.*

4. *A control chart approach that gives control limits for each constituent.*

5. *Another statistical test method submitted by the owner or operator and approved by the administrative authority.*

I. *Any statistical method chosen under LAC 33:V.3315.H for specification in the unit permit shall comply with the following performance standards, as appropriate.*

1. *The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.*

2. *If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.*

3. *If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the administrative authority if he or she finds it to be protective of human health and the environment.*

4. *If a tolerance interval or a prediction interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the administrative authority if he or she finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.*

5. *The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (PQL) approved by the administrative authority under LAC 33:V.3315.H that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.*

6. *If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.*

J. *Ground water monitoring data collected in accordance with LAC 33:V.3315.G including actual levels of constituents must be maintained in the facility operating record. The administrative authority will specify in the permit when the data must be submitted for review.*

K. *The ground water monitoring program must ensure that the permittee maintains records from all required ground water monitoring wells and associated ground water surface elevations for the active life of the facility, including the operating, closure, and post-closure care periods.*

3317. Detection Monitoring Program

[NOTE: An owner or operator required to establish a detection monitoring program under this Subpart must, at a minimum, discharge the following responsibilities.]

A. The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The authority will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

1. the types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

2. the mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

3. the detectability of indicator parameters, waste constituents, and reaction products in ground water; and

4. the concentrations or values, and coefficients of variation of proposed monitoring parameters or constituents in the ground water background.

B. The owner or operator must install a ground water monitoring system at the compliance point as specified under LAC 33:V.3311. The ground water monitoring system must comply with LAC 33:V.3315.A.2, B, and C.

C. The owner or operator must conduct a ground water monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to LAC 33:V.3317.A in accordance with LAC 33:V.3315.G. The owner or operator must maintain a record of ground water analytical data as measured and in a form necessary for the determination of statistical significance under LAC 33:V.3315.H.

D. The administrative authority will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under LAC 33:V.3317.A in accordance with LAC 33:V.3315.G. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during detection monitoring.

E. The owner or operator must use procedures and methods for sampling and analysis that meet the requirements of LAC 33:V.3315.D and E.

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in the permit pursuant to LAC 33:V.3317.A at a frequency specified under LAC 33:V.3317.D.

1. In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under LAC 33:V.3315.H. These method(s) must compare data collected at the compliance point(s) to the background ground water quality data.

2. The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well at the compliance point within a reasonable period of time after completion of sampling. The administrative authority will specify in the facility permit what period is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

G. If the owner or operator determines pursuant to LAC 33:V.3317.F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to LAC 33:V.3317.A at any monitoring well at the compliance point, he or she must do the following.

1. Notify the administrative authority of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

2. Immediately sample the ground water in all monitoring wells and determine whether constituents listed in LAC 33:V.3325.Table 4 are present, and if so, in what concentrations.

3. For any LAC 33:V.3325 compounds found in the analysis pursuant to LAC 33:V.3317.G.2, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to LAC 33:V.3317.G.2, the hazardous constituents found during this initial LAC 33:V.3325.Table 4 analysis will form the basis for compliance monitoring.

4. Within 90 days, submit to the Office of Environmental Services, Permits Division an application for a permit modification to establish a compliance monitoring program meeting the requirements of LAC 33:V.3319. The application must include the following information:

a. an identification of the concentration of any LAC 33:V.3325.Table 4 constituent detected in the ground water at each monitoring well at the compliance point;

b. any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of LAC 33:V.3319;

c. any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of LAC 33:V.3319;

d. for each hazardous constituent detected (as defined in LAC 33:V.3301.A.1) at the compliance point, a proposed concentration limit under LAC 33:V.3309.A.3.a or b, or a notice of intent to seek an alternate concentration limit under LAC 33:V.3309.B.

5. Within 180 days, submit to the Office of Environmental Services, Permits Division:

a. all data necessary to justify an alternate concentration limit sought under LAC 33:V.3309.B; and

b. an engineering feasibility plan for a corrective action program necessary to meet the requirement of LAC 33:V.3321, unless:

i. all hazardous constituents identified under LAC 33:V.3317.G.2 are listed in Table 1 of LAC 33:V.3309, and their concentrations do not exceed the respective values given in that table; or

ii. the owner or operator has sought an alternate concentration limit under LAC 33:V.3309.B for every hazardous constituent identified under LAC 33:V.3317.G.2.

6. If the owner or operator determines, pursuant to LAC 33:V.3317.F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to LAC 33:V.3317.A at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or

natural variation in the ground water. The owner or operator may make a demonstration under this Paragraph in addition to, or in lieu of, submitting a permit modification application under LAC 33:V.3317.G.4; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in LAC 33:V.3317.G.4 unless the demonstration made under this Paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this Paragraph, the owner or operator must:

a. *notify the Office of Environmental Services, Permits Division in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he or she intends to make a demonstration under this Paragraph;*

b. *within 90 days, submit a report to the Office of Environmental Services, Permits Division that demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;*

c. *within 90 days, submit to the administrative authority an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and*

d. *continue to monitor in accordance with the detection monitoring program established under this Section.*

H. *If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this Section, he or she must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.*

3319. Compliance Monitoring Program

[NOTE: An owner or operator required to establish a compliance monitoring program under this Chapter must, at a minimum, discharge the following responsibilities.]

A. *The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground water protection standard under LAC 33:V.3305. The administrative authority will specify the ground water protection standard in the facility permit, including:*

1. *a list of the hazardous constituents identified under LAC 33:V.3307;*

2. *concentration limits under LAC 33:V.3309 for each of those hazardous constituents;*

3. *the compliance point under LAC 33:V.3311; and*

4. *the compliance period under LAC 33:V.3313.*

B. *The owner or operator must install a ground water monitoring system at the compliance point as specified under LAC 33:V.3311. The ground water monitoring system must comply with LAC 33:V.3315.A.2, B, and C.*

C. *The administrative authority will specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with LAC 33:V.3315.G and H.*

1. *The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with LAC 33:V.3315.G.*

2. *The owner or operator must record ground water analytical data as measured and in the form necessary for the determination of statistical significance under LAC 33:V.3315.H for the compliance period of the facility.*

D. *The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to LAC 33:V.3319.A at a frequency specified under LAC 33:V.3319.F.*

1. *In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under LAC 33:V.3315.H. The method(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with LAC 33:V.3309.*

2. *The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable period after completion of sampling. The administrative authority will specify that period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.*

E. *The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.*

F. *The administrative authority will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with LAC 33:V.3315.G. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during the compliance period of the facility.*

G. *The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents listed in LAC 33:V.3325.Table 4 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in LAC 33:V.3317.F. If the owner or operator finds LAC 33:V.3325.Table 4 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the LAC 33:V.3325.Table 4 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentrations of these additional constituents to the administrative authority within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the administrative authority within seven days after completion of the initial analysis and add them to the monitoring list.*

H. *If the owner or operator determines, pursuant to LAC 33:V.3319.D, that any concentration limits under LAC 33:V.3309 are being exceeded at any monitoring well at the point of compliance, he or she must:*

1. *notify the Office of Environmental Services, Permits Division of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded; and*

2. *submit, to the Office of Environmental Services, Permits Division, an application for a permit modification to establish a corrective action program meeting the requirements of LAC 33:V.3321 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the administrative authority under LAC 33:V.3317.H.5. The application must at a minimum include the following information:*

a. a detailed description of corrective actions that will achieve compliance with the groundwater protection standard specified in the permit under LAC 33:V.3319.A; and

b. a plan for a groundwater monitoring program that will demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of this Section.

I. If the owner or operator determines, pursuant to LAC 33:V.3319.D, that the groundwater concentration limits under this Section are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. In making a demonstration under this Subsection, the owner or operator must:

1. notify the Office of Environmental Services, Permits Division in writing within seven days that he intends to make a demonstration under this Paragraph;

2. within 90 days, submit a report to the Office of Environmental Services, Permits Division which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis or evaluation;

3. within 90 days, submit to the Office of Environmental Services, Permits Division an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

4. continue to monitor in accord with the compliance monitoring program established under this Chapter.

J. If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this Section, he must, within 90 days, submit to the Office of Environmental Services, Permits Division an application for a permit modification to make any appropriate changes to the program.

3321. Corrective Action Program

[NOTE: An owner or operator required to establish a corrective action program under this Subpart must, at a minimum, discharge the following responsibilities.]

A. The owner or operator must take corrective action to ensure that regulated units are in compliance with the groundwater protection standard under LAC 33:V.3305. The administrative authority will specify the groundwater protection standard in the facility permit, including:

1. a list of the hazardous constituents identified under LAC 33:V.3307;

2. concentration limits under LAC 33:V.3309 for each of those hazardous constituents;

3. the compliance point under LAC 33:V.3311; and

4. the compliance period under LAC 33:V.3313.

B. The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

C. *The owner or operator must begin corrective action within a reasonable time period after the groundwater protection standard is exceeded. The administrative authority will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of LAC 33:V.3319.I.2.*

D. *In conjunction with a corrective action program, the owner or operator must establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under LAC 33:V.3319 and must be as effective as that program in determining compliance with the groundwater protection standard under LAC 33:V.3305 and in determining the success of a corrective action program under LAC 33:V.3321.E, where appropriate.*

E. *in addition to the other requirements of this Section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under LAC 33:V.3307 that exceed concentration limits under LAC 33:V.3309 in groundwater:*

1. *between the compliance point under LAC 33:V.3311 and the downgradient facility property boundary; and*

2. *beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the administrative authority that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis;*

3. *corrective action measures under this Subsection must be initiated and completed within a reasonable period of time considering the extent of contamination;*

4. *corrective action measures under this Subsection may be terminated once the concentration of hazardous constituents under LAC 33:V.3307 is reduced to levels below their respective concentration limits under LAC 33:V.3309.*

F. *The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the groundwater monitoring program under LAC 33:V.3321.D, that the groundwater protection standard of LAC 33:V.3305 has not been exceeded for a period of three consecutive years.*

G. *The owner or operator must report in writing to the Office of Environmental Assessment, Remediation Services Division on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually; and*

H. *if the owner or operator determines that the corrective action program no longer satisfies the requirements of this Section, he must, within 90 days, submit to the Office of Environmental Services, Permits Division an application for a permit modification to make any appropriate changes to the program.*

3322. Corrective Action

A. The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

B. Corrective action will be specified in the permit in accordance with LAC 33:V.2601 and 3322. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

C. The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the administrative authority that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner or operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

D. Any risk-assessment-based corrective action must be protective of human health and the environment in accordance with LAC 33:I.Chapter 13.

E. This Section does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

The facility has conducted an environmental assessment (Appendix U) in accordance with its current permit. This environmental assessment demonstrated that the facility meets the environmental performance standards of Section 3203. Furthermore, continued annual soil monitoring has shown no impacts (2002 Report, Appendix V). Therefore, a corrective action program is not required for the permitted operating miscellaneous unit. Should a corrective action program be required, all applicable subsections of Section 3321 will be addressed.

The "Old Burn Unit", which has undergone partial closure, is also classified as a miscellaneous unit. As required by LAC 33:V.3205 and 3322, a "Risk Based Corrective Action Evaluation Workplan" (1998 in Appendix M) has been submitted to the administrative authority for review and approval. This workplan followed the requirements of the applicable subsections of Section 3321.

3323. Monitoring Well Abandonment and Sealing of Bore Holes

[NOTE: An owner or operator shall provide for the sealing of any vertical migration path resulting from exploratory boring and/or monitoring programs.]

A. Any boring made in evaluating a site, monitoring, or other purpose related to the hazardous waste site shall be completely filled with cement-bentonite, or other equivalent technology approved by the administrative authority. The hole shall be left open only as necessary to obtain core samples, water samples and establish the initial water level. If subsequent samples or water level readings are to be taken, the hole shall be completed as a well with suitable casing and sealing of the annulus between the hole and the casing.

The drilling of any new exploratory boring made at the facility will be done in accordance with the requirements of this section and the standards and guidelines specified in the "Construction of Geotechnical Boreholes and Ground Water Monitoring Systems" prepared by the Louisiana Department of Environmental Quality (LDEQ) and the Louisiana Department of Transportation and Development (LDOTD), dated December 2000 or the latest revision. The borings will be sealed in accordance with this document.

B. When a monitoring well is to be abandoned, the owner or operator shall obtain approval for such abandonment. A request shall be made to the administrative authority, including the following information:

1. name and address of the facility;

2. well identification and exact location;

3. well construction data, including:

a. well depth and intermediate stratification;

b. screen length and material;

c. casing size and material;

d. sealing of the annulus; and

e. other pertinent data;

4. reason for abandonment; and

5. proposed abandonment method, including sealing method and material proposed.

In the event the facility needs to abandon a monitoring well, a workplan will be submitted to the LDEQ for review and approval prior to beginning any abandonment work. The workplan will include the information required in Section 3323.B. The proposed abandonment procedures will conform to standards and guidelines specified in the "Construction of Geotechnical Boreholes and Ground Water Monitoring Systems" prepared by the LDEQ and LDOTD, dated December 2000, or the latest revision.

C. The administrative authority may accept the proposal or require modification as necessary to protect groundwater.

The facility acknowledges the authority of the LDEQ to review and approve the proposal required in Section 3323.B or require a modification as necessary to protect the ground water.

D. For any monitoring well which goes through or into a recognized potable water aquifer, and any well which the administrative authority feels could directly impact such aquifer, the owner or operator shall additionally complete and submit an abandonment report as required by the Water Resources Section of the Office of Public Works in the Department of Transportation and Development, or its successor agency.

The Water Resources Section of the Office of Public Works in the LDOTD requires that any monitoring well installation and abandonment work be completed by a water well contractor licensed in the State of Louisiana. The contractor and owner are required to submit an installation report for any new well and a plugging and abandonment report for any abandoned well. For any new wells and abandonment of any existing wells, the facility will complete and submit the appropriate reports as required by the LDEQ and LDOTD.

3325. Ground Water Monitoring List [1]

Table 4 lists ground water monitoring constituents.

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Acenaphthene	*83-32-9*	*Acenaphthylene, 1,2-dihydro-*	*8100*	*200*
			8270	*10*
Acenaphthylene	*208-96-8*	*Acenaphthylene*	*8100*	*200*
			8270	*10*
Acetone	*67-64-1*	*2-Propanone*	*8240*	*100*
Acetophenone	*98-86-2*	*Ethanone, 1-phenyl-*	*8270*	*10*
Acetonitrile; Methyl cyanide	*75-05-8*	*Acetonitrile*	*8015*	*100*
2-Acetylamino-fluorene; 2-AAF	*53-96-3*	*Acetamide, N-9H-fluoren-2-yl-*	*8270*	*10*
Acrolein	*107-02-8*	*2-Propenal*	*8030*	*5*
			8240	*5*
Acrylonitrile	*107-13-1*	*2-Propenenitrile*	*8030*	*5*
			8240	*5*
Aldrin	*309-00-2*	*1,4:5,8-Dimethano-naphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8, 8a,-hexa-hydro (1(,4(, 4aβ,5β,8(,8aβ)*	*8080*	*0.05*
			8270	*10*
Allyl chloride	*107-05-1*	*1-Propene, 3-chloro-*	*8010*	*5*
			8240	*100*
4-Amino-biphenyl	*92-67-1*	*[1,1'-Biphenyl]-4-amine*	*8270*	*10*
Aniline	*62-53-3*	*Benzenamine*	*8270*	*10*
Anathracene	*120-12-7*	*Anthracene*	*8100*	*200*
			8270	*10*
Antimony	*(Total)*	*Antimony*	*6010*	*300*
			7040	*2,000*
			7041	*30*
Aramite	*140-57-8*	*Sulfurous acid,2-chloro-ethyl 2-[4-(1,1-di-methylethyl) phenoxy]-1-methyl-ethyl ester*	*8270*	*10*
Arsenic	*(Total)*	*Arsenic*	*6010*	*500*
			7060	*10*
			7061	*20*
Barium	*(Total)*	*Barium*	*6010*	*20*
			7080	*1,000*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Benzene	*71-43-2*	*Benzene*	*8020*	*2*
			8240	*5*
Benzo[a]anthracene; Benzanthracene	*56-55-3*	*Benz[a]anthracene*	*8100*	*200*
			8270	*10*
Benzo[b]-fluoranthene	*205-99-2*	*Benz[e]acephen-anthrylene*	*8100*	*200*
			8270	*10*
Benzo[k]-fluoranthene	*207-08-9*	*Benzo[k]fluoranthene*	*8100*	*200*
			8270	*10*
Benzo[ghi]perylene	*191-24-2*	*Benzo[ghi]perylene*	*8100*	*200*
			8270	*10*
Benzo[a]pyrene	*50-32-8*	*Benzo[a]pyrene*	*8100*	*200*
			8270	*10*
Benzyl alcohol	*100-51-6*	*Benzenemethanol*	*8270*	*20*
Beryllium	*(Total)*	*Beryllium*	*6010*	*3*
			7090	*50*
alpha-BHC	*319-84-6*	*Cyclohexane,1,2,3,4,5, 6-hexachloro-, (1(,2(,3β,4(,5β,6β)*	*8080*	*0.05*
			8250	*10*
beta-BHC	*319-85-7*	*Cyclohexane, 1,2,3,4,5, 6-hexachloro-, (1(,2β,3(,4β,5(,6β)-*	*8080*	*0.05*
			8250	*40*
delta-BHC	*319-86-8*	*Cyclohexane, 1,2,3,4,5, 6-hexachloro-,(1(,2(,3(, 4β,5(,6β)-*	*8080*	*0.1*
			8250	*30*
gamma-BHC; Lindane	*58-89-9*	*Cyclohexane, 1,2,3,4,5, 6-hexachloro-, (1(,2(,3β,4(,5(,6β)*	*8080*	*0.05*
			8250	*10*
Bis(2-chloroethoxy) methane-	*111-91-1*	*Ethane,1,1'-[methylenebis(oxy)]bis[2- chloro-*	*8270*	*10*
Bis(2-chloroethyl) ether	*111-44-4*	*Ethane, 1,1'-oxybis[2-chloro-*	*8270*	*10*
Bis(2-chloro-1-methylethyl)ether; 2,2'-Dichlorodi-isopropyl ether	*108-60-1*	*Propane, 2,2'-oxybis [1-chloro-*	*8010*	*100*
			8270	*10*
Bis(2-ethyl-hexyl) phthalat	*117-81-7*	*1,2-Benzenedicarboxylic acid,bis(2-ethylhexyl) ester*	*8060*	*20*
			8270	*10*
Bromodichloro-methane	*75-27-4*	*Methane, bromodichloro-*	*8010*	*1*
			8240	*5*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Bromoform; Tribromomethane	*75-25-2*	*Methane, tribromo-*	*8010*	*2*
			8240	*5*
4-Bromophenyl-phenyl ether	*101-55-3*	*Benzene, 1-bromo-4-phenoxy-*	*8270*	*10*
Butyl benzyl phthalate; Benzyl butyl phthalate	*85-68-7*	*1,2-Benzenedicarboxylic acid, butyl phenyl- methyl ester*	*8060*	*5*
			8270	*10*
Cadmium	*(Total)*	*Cadmium*	*6010*	*40*
			7130	*50*
			7131	*1*
Carbon disulfide	*75-15-0*	*Carbon disulfide*	*8240*	*5*
Carbon tetrachloride	*56-23-5*	*Methane, tetrachloro-*	*8010*	*1*
			8240	*5*
Chlordane	*57-74-9*	*4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-*	*8080*	*0.1*
			8250	*10*
p-Chloroaniline	*106-47-8*	*Benzenamine, 4 chloro-*	*8270*	*20*
Chlorobenzene	*108-90-7*	*Benzene, chloro-*	*8010*	*2*
			8020	*2*
Chloro- benzilate	*510-15-6*	*Benzeneacetic acid, 4-chloro-(-(4-chlorophenyl)-(-hydroxy-, ethyl ester*	*8270*	*10*
p-Chloro- m-cresol	*59-50-7*	*Phenol, 4-chloro-3-methyl-*	*8040*	*5*
			8270	*20*
Chloroethane; Ethyl chloride	*75-00-3*	*Ethane, chloro-*	*8010*	*5*
			8240	*10*
Chloroform	*67-66-3*	*Methane, trichloro-*	*8010*	*0.5*
			8240	*5*
2-Chloronaphthalene	*91-58-7*	*Naphthalene, 2-chloro-*	*8120*	*10*
			8270	*10*
2-Chlorophenol	*95-57-8*	*Phenol, 2-chloro-*	*8040*	*5*
			8270	*10*
4-Chlorophenyl phenyl ether	*7005-72-3*	*Benzene, 1-chloro-4-phenoxy-*	*8270*	*10*
Chloroprene	*126-99-8*	*1,3-Butadiene, 2-chloro-*	*8010*	*50*
			8240	*5*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Chromium	*(Total)*	*Chromium*	*6010*	*70*
			7190	*500*
			7191	*10*
Chrysene	*218-01-9*	*Chrysene*	*8100*	*200*
			8270	*10*
Cobalt	*(Total)*	*Cobalt*	*6010*	*70*
			7200	*500*
			7201	*10*
Copper	*(Total)*	*Copper*	*6010*	*60*
			7210	*200*
m-Cresol	*108-39-4*	*Phenol, 3-methyl-*	*8270*	*10*
o-Cresol	*95-48-7*	*Phenol, 2-methyl-*	*8270*	*10*
p-Cresol	*106-44-5*	*Phenol, 4-methyl-*	*8270*	*10*
Cyanide	*57-12-5*	*Cyanide*	*9010*	*40*
2,4-D; 2,4-Dichlorophenoxyacetic acid	*94-75-7*	*Acetic acid, (2,4-dichlorophenoxy)-*	*8150*	*10*
4,4'-DDD	*72-54-8*	*Benzene 1,1'-(2,2-dichloroethylidene) bis[4-chloro-*	*8080*	*0.1*
			8270	*10*
4,4'-DDE	*72-55-9*	*Benzene, 1,1'-(dichloroethenylidene) bis[4-chloro-*	*8080*	*0.05*
			8270	*10*
4,4'-DDT	*50-29-3*	*Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-chloro-*	*8080*	*0.1*
			8270	*10*
Diallate	*2303-16-4*	*Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl)ester*	*8270*	*10*
Dibenz[a,h] anthracene	*53-70-3*	*Dibenz[a,h]anthracene*	*8100*	*200*
			8270	*10*
Dibenzofuran	*132-64-9*	*Dibenzofuran*	*8270*	*10*
Dibromochloromethane;Chlorodibromomethane	*124-48-1*	*Methane, dibromo- chloro-*	*8010*	*1*
			8240	*5*
1,2-Dibromo-3chloropropane; DBCP	*96-12-8*	*Propane, 1,2-dibromo-3-chloro-*	*8010*	*100*
			8240	*5*
			8270	*10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
1,2-Dibromoethane; Ethylene dibromide	*106-93-4*	*Ethane, 1,2-dibromo-*	*8010* *8240*	*10* *5*
Di-n-butyl phthalate	*84-74-2*	*1,2-Benzenedicarboxylic acid, dibutyl ester*	*8060* *8270*	*5* *10*
o-Dichlorobenzene	*95-50-1*	*Benzene, 1,2-dichloro-*	*8010* *8020* *8120* *8270*	*2* *5* *10* *10*
m-Dichlorobenzene	*541-73-1*	*Benzene, 1,3-dichloro-*	*8010* *8020* *8120* *8270*	*5* *5* *10* *10*
p-Dichlorobenzene	*106-46-7*	*Benzene, 1,4-dichloro-*	*8010* *8020* *8120* *8270*	*2* *5* *15* *10*
3,3'-Dichlorobenzidine	*91-94-1*	*[1,1'-Biphenyl]4,4'-diamine, 3,3'-dichloro-*	*8270*	*20*
trans-1,4-Dichloro-2-butene	*110-57-6*	*2-Butene,1,4- dichloro-, (E)-*	*8240*	*5*
Dichlorodifluoromethane	*75-71-8*	*Methane, dichlorodifluoro-*	*8010* *8240*	*10* *5*
1,1-Dichloroethane	*75-34-3*	*Ethane,1,1-dichloro-*	*8010* *8240*	*1* *5*
1,2-Dichloroethane; Ethylene dichloride	*107-06-2*	*Ethane, 1,2-dichloro-*	*8010* *8240*	*0.5* *5*
1,1-Dichloroethylene; Vinylidene chloride	*75-35-4*	*Ethene, 1,1-dichloro-*	*8010* *8240*	*1* *5*
trans-1,2-Dichloroethylene	*156-60-5*	*Ethene,1,2-dichloro-(E)-*	*8010* *8240*	*1* *5*
2,4-Dichlorophenol	*120-83-2*	*Phenol, 2,4-dichloro-*	*8040* *8270*	*5* *10*
2,6-Dichlorophenol	*87-65-0*	*Phenol, 2,6-dichloro-*	*8270*	*10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
1,2-Dichloropropane	*78-87-5*	*Propane, 1,2- dichloro-*	*8010* *8240*	*0.5* *5*
cis-1,3- Dichloropropene	*10061-01-5*	*1-Propene, 1,3- dichloro-,(Z)-*	*8010* *8240*	*20* *5*
trans-1,3-Dichloropropene	*10061-02-6*	*1-Propene, 1,3- dichloro-, (E)-*	*8010* *8240*	*5* *5*
Dieldrin	*60-57-1*	*2,7:3,6-Dimethanonaphth [2,3-b]oxirene,3,4,5, 6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a(,2β,2a(,3β,6β,6a(,7β,7a()-*	*8080* *8270*	*0.05* *10*
Diethyl phthalate	*84-66-2*	*1,2-Benzenedicarboxylic acid, diethyl ester*	*8060* *8270*	*5* *10*
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	*297-97-2*	*Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester*	*8270*	*10*
Dimethoate	*60-51-5*	*Phosphorodithioic acid, O,O-dimethyls-[2-(methylamino)-2-oxoethyl] ester*	*8270*	*10*
p-(Dimethylamino)azobenzene	*60-11-7*	*Benzenamine, N,N-dimethyl-4- (phenylazo)-*	*8270*	*10*
7,12-Dimethylbenz[a] anthracene	*57-97-6*	*Benz[a]anthracene, 7,12-dimethyl-*	*8270*	*10*
3,3'-Dimethylbenzidine	*119-93-7*	*[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-*	*8270*	*10*
alpha, alpha-Dimethylphenethylamine	*122-09-8*	*Benzeneethanamine, α,α-dimethyl-*	*8270*	*10*
2,4-Dimethylphenol	*105-67-9*	*Phenol, 2,4-dimethyl-*	*8040*	*5*
Dimethyl phthalate	*131-11-3*	*1,2-Benzenedicarboxylic acid, dimethyl ester*	*8060* *8270*	*5* *10*
m-Dinitrobenzene	*99-65-0*	*Benzene, 1,3-dinitro-*	*8270*	*10*
4,6-Dinitro-o-cresol	*534-52-1*	*Phenol, 2-methyl-4,6-dinitro-*	*8040* *8270*	*150* *50*
2,4-Dinitrophenol	*51-28-5*	*Phenol, 2,4-dinitro-*	*8040* *8270*	*150* *50*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
2,4-Dinitro-toluene	*121-14-2*	*Benzene, 1-methyl-2, 4-dinitro-*	*8090* *8270*	*0.2* *10*
2,6-Dinitro-toluene	*606-20-2*	*Benzene, 2-methyl- 1,3-dinitro-*	*8090* *8270*	*0.1* *10*
Dinoseb; DNBP; 2-sec-Butyl- 4,6-dinitrophenol	*88-85-7*	*Phenol, 2-(1-methyl-propyl)-4,6-dinitro-*	*8150* *8270*	*1* *10*
Di-n-octyl phthalate	*117-84-0*	*1,2-Benzenedicarboxylic acid, dioctyl ester*	*8060* *8270*	*30* *10*
1,4-Dioxane	*123-91-1*	*1,4-Dioxane*	*8015*	*150*
Diphenylamine	*122-39-4*	*Benzenamine, N-phenyl-*	*8270*	*10*
Disulfoton	*298-04-4*	*Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester*	*8140* *8270*	*2* *10*
Endosulfan I	*959-98-8*	*6,9-Methano-2,4,3-benzodioxathiepin 6,7,8, 9,10,10-hexachloro-1,5, 5a,6,9,9a-hexahydro-, 3-oxide, (3(,5aβ,6(,9(, 9aβ)-*	*8080* *8250*	*0.1* *10*
Endosulfan II	*3213-65-9*	*6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexa-chloro-1,5,5a,6,9, 9a-hexahydro-, 3-oxide, (3(,5a(,6β,9(,9a()-*	*8080*	*0.05*
Endosulfan sulfate	*1031-07-8*	*6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexa-chloro-1,5,5a,6,9,9a- hexahydro-, 3,3-dioxide*	*8080* *8270*	*0.5* *10*
Endrin	*72-20-8*	*2,7:3,6-Dimethanonaphth[2,3-b]oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a(,2β,2aβ, 3(,6(,6aβ, 7β,7a()-*	*8080* *8250*	*0.1* *10*
Endrin aldehyde	*7421-93-4*	*1,2,4-Methenocyclopenta[cd] pentalene- 5-carboxaldehyde, 2,2a,3,3,4,7-hexachloro-decahydro-,(1(,2β,2aβ, 4β,4aβ,5β,6aβ,6bβ,7R*)-*	*8080* *8270*	*0.2* *10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Ethylbenzene	*100-41-4*	*Benzene, ethyl-*	*8020*	*2*
			8240	*5*
Ethyl methacrylate	*97-63-2*	*2-Propenoic acid, 2-methyl-, ethyl ester*	*8015*	*10*
			8240	*5*
			8270	*10*
Ethyl methane-sulfonate	*62-50-0*	*Methanesulfonic acid, ethyl ester*	*8270*	*10*
Famphur	*52-85-7*	*Phosphorothioic acid, O-[4-[(dimethylamino) sulfonyl]phenyl]-O,O-dimethyl ester*	*8270*	*10*
Fluoranthene	*206-44-0*	*Fluoranthene*	*8100*	*200*
Fluorene	*86-73-7*	*9H-Fluorene*	*8100*	*200*
			8270	*10*
Heptachlor	*76-44-8*	*4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hepta-chloro-3a,4,7,7a-tetrahydro-*	*8080*	*0.05*
			8270	*10*
Heptachlor epoxide	*1024-57-3*	*2,5-Methano-2H-indeno [1,2-b]oxirene,2,3,4,5, 6,7,7-heptachloro-1a,1b,5,5a, 6,6ahexa-hydro-,(1a(,1bβ,2(, 5(,5aβ,6β,6a()*	*8080*	*1*
			8270	*10*
Hexachlorobenzene	*118-74-1*	*Benzene, hexachloro-*	*8120*	*0.5*
			8270	*10*
Hexachlorobutadiene	*87-68-3*	*1,3-Butadiene, 1,1,2,3,4,4-hexachloro-*	*8120*	*5*
			8270	*10*
Hexachloro-cyclopentadiene	*77-47-4*	*1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-*	*8120*	*5*
			8270	*10*
Hexachloroethane	*67-72-1*	*Ethane, hexachloro-*	*8120*	*0.5*
			8270	*10*
Hexachlorophene	*70-30-4*	*Phenol,2,2'-methyl-enebis [3,4,6- tri-chloro-*	*8270*	*10*
			8270	*10*
Hexachloropropene	*1888-71-7*	*1-Propene,1,1,2,3,3,3-hexachloro*	*8270*	*10*
2-Hexanone	*591-78-6*	*2-Hexanone*	*8240*	*50*
Indeno(1,2,3- cd) pyrene	*193-39-5*	*Indeno[1,2,3-cd] pyrene*	*8100*	*200*
			8270	*10*
Isobutyl alcohol	*78-83-1*	*1-Propanol, 2-methyl-*	*8015*	*50*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Isodrin	*465-73-6*	*1,4,5,8-Dimethano-naphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro- (1(,4(,4aβ, 5β,8β,8aβ) -*	*8270*	*10*
Isophorone	*78-59-1*	*2-Cyclohexen-1-one,3,5,5-trimethyl-*	*8090*	*60*
			8270	*10*
Isosafrole	*120-58-1*	*1,3-Benzodioxole,5-(1-propenyl)-*	*8270*	*10*
Kepone	*143-50-0*	*1,3,4-Metheno-2H-cylo-buta-[cd]pentalen-2-one,1,1a,3,3a,4,5,5,5a,5b,6-decachloroocta-hydro-*	*8270*	*10*
Lead	*(Total)*	*Lead*	*6010*	*40*
			7420	*1,000*
			7421	*10*
Mercury	*(Total)*	*Mercury*	*7470*	*2*
Methacrylonitrile	*126-98-7*	*2-Propenenitrile, 2-methyl-*	*8015*	*5*
			8240	*5*
Methapyrilene	*91-80-5*	*1,2,Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-*	*8270*	*10*
Methoxychlor	*72-43-5*	*Benzene,1,1'-(2,2,2, trichloroethylidene) bis[4-methoxy-*	*8080*	*2*
			8270	*10*
Methyl bromide; Bromomethane	*74-83-9*	*Methane, bromo-*	*8010*	*20*
			8240	*10*
Methyl chloride; Chloromethane	*74-87-3*	*Methane, chloro-*	*8010*	*1*
			8240	*10*
3-Methyl-cholanthrene	*56-49-5*	*Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-*	*8270*	*10*
Methylene bromide; Dibromomethane	*74-95-3*	*Methane, dibromo-*	*8010*	*15*
			8240	*5*
Methylene chloride; Dichloromethane	*75-09-2*	*Methane, dichloro-*	*8010*	*5*
			8240	*5*
Methyl ethyl ketone; MEK	*78-93-3*	*2-Butanone*	*8015*	*10*
			8240	*100*
Methyl iodide; Iodomethane	*74-88-4*	*Methane, iodo-*	*8010*	*40*
			8240	*5*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Methylmethacrylate	*80-62-6*	*2-Propenoic acid, 2-methyl-, methyl ester*	*8015* *8240*	*2* *5*
Methyl methanesulfonate	*66-27-3*	*Methanesulfonic acid, methyl ester*	*8270*	*10*
2-Methyl-naphthalene	*91-57-6*	*Naphthalene, 2-methyl-*	*8270*	*10*
Methyl parathion; Parathion methyl	*298-00-0*	*Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl)ester*	*8140* *8270*	*0.5* *10*
4-Methyl-2-pentanone; Methyl misobutyl ketone	*108-10-1*	*2-Pentanone, 4-methyl*	*8015* *8240*	*5* *50*
Naphthalene	*91-20-3*	*Naphthalene*	*8100* *8270*	*200* *10*
1,4-Naphthoquinone	*130-15-4*	*1,4-Naphthalene-dione*	*8270*	*10*
1-Naphthylamine	*134-32-7*	*1-Naphthalenamine*	*8270*	*10*
2-Naphthylamine	*91-59-8*	*2-Naphthalenamine*	*8270*	*10*
Nickel	*(Total)*	*Nickel*	*6010* *7520*	*50* *400*
o-Nitroaniline	*88-74-4*	*Benzenamine, 2-nitro-*	*8270*	*50*
m-Nitroaniline	*99-09-2*	*Benzenamine, 3-nitro-*	*8270*	*50*
p-Nitroaniline	*100-01-6*	*Benzenamine, 4-nitro-*	*8270*	*50*
Nitrobenzene	*98-95-3*	*Benzene, nitro-*	*8090* *8270*	*40* *10*
o-Nitrophenol	*88-75-5*	*Phenol, 2-nitro-*	*8040* *8270*	*5* *10*
p-Nitrophenol	*100-02-7*	*Phenol, 4-nitro-*	*8040*	*10*
4-Nitroquinoline, 1-oxide	*56-57-5*	*Quinoline, 4-nitro-, 1-oxide*	*8270*	*10*
N-Nitrosodi-n-butylamine	*924-16-3*	*1-Butanamine, N-butyl-N-nitroso*	*8270*	*10*
N-Nitroso-diethylamine	*55-18-5*	*Ethanamine, N-ethyl- N-nitroso*	*8270*	*10*
N-Nitroso-dimethylamine	*62-75-9*	*Methanamine, N- methyl-N-nitroso-*	*8270*	*10*
N-Nitroso-diphenylamine	*86-30-6*	*Benzenamine, N-nitroso-N-phenyl-*	*8270*	*10*
N-Nitrosodipropyl-amine;Di-n-propyl-nitrosamine	*621-64-7*	*1-Propanamine, N-nitroso-N-propyl-*	*8270*	*10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
N-Nitrosomethylethylamine	*10595-95-6*	*Ethanamine, N-methyl- N-nitroso-*	*8270*	*10*
N-Nitrosomorpholine	*59-89-2*	*Morpholine, 4-nitroso-*	*8270*	*10*
N-Nitrosopiperidine	*100-75-4*	*Piperidine, 1- nitroso-*	*8270*	*10*
N-Nitrosopyrrolidine	*930-55-2*	*Pyrrolidine, 1- nitroso-*	*8270*	*10*
5-Nitro-o-toluidine	*99-55-8*	*Benzenamine,2-methyl-5-nitro-*	*8270*	*10*
Parathion	*56-38-2*	*Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester*	*8270*	*10*
Polychlorinated biphenyls; PCBs	*See Note 7*	*1,1'-Biphenyl, chloro derivatives*	*8080* *8250*	*50* *100*
Polychlorinated dibenzo-p- dioxins; PCDDs	*See Note 8*	*Dibenzo[b,e][1,4]dioxin, chloro derivatives*	*8280*	*0.01*
Polychlorinated dibenzofurans; PCDFs	*See Note 9*	*Dibenzofuran, chloro derivatives*	*8280*	*0.01*
Pentachlorobenzene	*608-93-5*	*Benzene, pentachloro-*	*8270*	*10*
Pentachloroethane	*76-01-7*	*Ethane, pentachloro-*	*8240* *8270*	*5* *10*
Pentachloronitrobenzene	*82-68-8*	*Benzene, pentachloronitro-*	*8270*	*10*
Pentachlorophenol	*87-86-5*	*Phenol, pentachloro-*	*8040* *8270*	*5* *50*
Phenacetin	*62-44-2*	*Acetamide, N-(4-ethoxyphenyl)*	*8270*	*10*
Phenanthrene	*85-01-8*	*Phenanthrene*	*8100* *8270*	*200* *10*
Phenol	*108-95-2*	*Phenol*	*8040* *8270*	*1* *10*
p-Phenylenediamine	*106-50-3*	*1,4- Benzenediamine*	*8270*	*10*
Phorate	*298-02-2*	*Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester*	*8140* *8270*	*2* *10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
2-Picoline	*109-06-8*	*Pyridine, 2-methyl-*	*8240*	*5*
			8270	*10*
Pronamide	*23950-58-5*	*Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-*	*8270*	*10*
Propionitrile; Ethyl cyanide	*107-12-0*	*Propanenitrile*	*8015*	*60*
			8240	*5*
Pyrene	*129-00-0*	*Pyrene*	*8100*	*200*
			8270	*10*
Pyridine	*110-86-1*	*Pyridine*	*8240*	*5*
			8270	*10*
Safrole	*94-59-7*	*1,3-Benzodioxole, 5- (2-propenyl)-*	*8270*	*10*
Selenium	*(Total)*	*Selenium*	*6010*	*750*
			7740	*20*
			7741	*20*
Silver	*(Total)*	*Silver*	*6010*	*70*
			7760	*100*
Silvex; 2,4,5-TP	*93-72-1*	*Propanoic acid,2-(2,4, 5-trichlorophenoxy)-*	*8150*	*2*
Styrene	*100-42-5*	*Benzene, ethenyl-*	*8020*	*1*
			8240	*5*
Sulfide	*18496-25-8*	*Sulfide*	*9030*	*10,000*
2,4,5-T; 2,4,5-, Trichlorophenoxy-acetic acid	*93-76-5*	*Acetic acid, (2,4,5-trichlorophenoxy)-*	*8150*	*2*
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	*1746-01-6*	*Dibenzo[b,e][1,4]dioxin2, 3,7,8-tetrachloro-*	*8280*	*0.005*
1,2,4,5-Tetrachlorobenzene	*95-94-3*	*Benzene, 1,2,4,5-tetrachloro-*	*8270*	*10*
1,1,1,2-Tetrachloroethane	*630-20-6*	*Ethane, 1,1,1,2-tetrachloro-*	*8010*	*5*
			8240	*5*
1,1,2,2-Tetrachloroethane	*79-34-5*	*Ethane, 1,1,2,2-tetrachloro-*	*8010*	*0.5*
			8240	*5*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	*CAS RN*[3]	*Chemical Abstracts Service Index Name*[4]	*Suggested Methods*[5]	*PQL (µg/L)*[6]
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene	*127-18-4*	*Ethene, tetrachloro-*	*8010* *8240*	*0.5* *5*
2,3,4,6-Tetrachlorophenol	*58-90-2*	*Phenol, 2,3,4,6-tetrachloro-*	*8270*	*10*
Tetraethyl dithiopyrophosphate; Sulfotepp	*3689-24-5*	*Thiodiphosphoric acid ($[(HO)_2P(S)]_2O$), tetraethyl ester*	*8270*	*10*
Thallium	*(Total)*	*Thallium*	*6010* *7840* *7841*	*400* *1,000* *10*
Tin	*(Total)*	*Tin*	*7870*	*8,000*
Toluene	*108-88-3*	*Benzene, methyl-*	*8020* *8240*	*2* *5*
o-Toluidine	*95-53-4*	*Benzenamine, 2-methyl-*	*8270*	*10*
Toxaphene	*8001-35-2*	*Toxaphene*	*8080* *8250*	*2* *10*
1,2,4-Trichlorobenzene	*120-82-1*	*Benzene,1,2,4-trichloro-*	*8270*	*10*
1,1,1-Trichloroethane; Methylchloroform	*71-55-6*	*Ethane, 1,1,1-trichloro-*	*8240*	*5*
1,1,2-Trichloroethane	*79-00-5*	*Ethane,1,1,2-,trichloro-*	*8010* *8240*	*0.2* *5*
Trichloroethylene; Trichloroethene	*79-01-6*	*Ethene, trichloro-*	*8010* *8240*	*1* *5*
Trichlorofluoromethane	*75-69-4*	*Methane,trichlorofluoro-*	*8010* *8240*	*10* *5*
2,4,5-Trichlorophenol	*95-95-4*	*Phenol, 2,4,5-trichloro-*	*8270*	*10*
2,4,6-Trichlorophenol	*88-06-2*	*Phenol, 2,4,6-trichloro-*	*8040* *8270*	*5* *10*
1,2,3-Trichloropropane	*96-18-4*	*Propane,1,2,3-tri-chloro-*	*8010* *8240*	*10* *5*
O,O,O-Triethyl phosphorothioate	*126-68-1*	*Phosphorothioic acid, O,O,O-triethyl ester*	*8270*	*10*
sym-Trinitrobenzene	*99-35-4*	*Benzene, 1,3,5- trinitro*	*8270*	*10*

Table 4. Ground Water Monitoring List [1]

Common Name[2]	CAS RN[3]	Chemical Abstracts Service Index Name[4]	Suggested Methods[5]	PQL (µg/L)[6]
Vanadium	(Total)	Vanadium	6010	80
			7910	2,000
			7911	40
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8240	5
Vinyl chloride	75-01-4	Ethene, chloro-	8010	2
			8240	10
Xylene (total)	1330-20-7	Benzene, dimethyl-	8020	5
			8240	5
Zinc	(Total)	Zinc	6010	20
			7950	50

[1] *The regulatory requirements pertain only to the list of substances; the right-hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.*

[2] *Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.*

[3] *Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.*

[4] *CAS index names are those used in the ninth Cumulative Index.*

[5] *Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Analytical details can be found in SW-846 and in documentation on file at the agency. The packed column gas chromatography methods 8010, 8020, 8030, 8040, 8060, 8080, 8090, 8110, 8120, 8140, 8150, 8240, and 8250 were promulgated methods through Update IIB of SW-846 and, as of Update III, the agency has replaced these methods with "capillary column GC methods," as the suggested methods. Caution: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.*

[6] *Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in ground waters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. Caution: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.*

[7] *Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5). The PQL shown is an averaged value for PCB congeners.*

[8] *This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins. The PQL shown is an average value for PCDD congeners.*

[9] *This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans. The PQL shown is an average value for PCDF congeners.*

Chapter 35
Closure and Post-Closure

3501. Applicability

A. Closure and post-closure procedures ensure protection of the public and ecology against leakage of hazardous wastes to the environment from closed facilities which formerly stored, treated, and/or disposed of such wastes.

B. Except as LAC 33:V.1501 provides otherwise, LAC 33:V.3503-3517 (which concern closure) apply to all hazardous waste facilities in operation or under construction as of the effective date of LAC 33:V.Subpart 1 and to all hazardous waste facilities permitted under LAC 33:V.Subpart 1, as applicable.

The closure plan for Clean Harbors Colfax, LLC conforms to the requirements of LAC 33:V.3503 through 3517, as applicable.

C. LAC 33:V.3519, 3521, 3523, 3525 and 3527 (post-closure care) apply to the owners and operators of:

1. all hazardous waste disposal facilities;

Clean Harbors Colfax, LLC does not operate a disposal facility; therefore, this section does not apply.

2. waste piles, surface impoundments, or any facility from which the owner or operator intends to remove waste at closure, to the extent that these sections are made applicable to such facilities in LAC 33:V.2315 and 2911;

Clean Harbors Colfax, LLC does not operate a pile, surface impoundment, or other facility requiring removal of waste at closure; therefore, this section does not apply.

3. tank systems that are required under LAC 33:V.1915 to meet the requirements for landfills; and

Clean Harbors Colfax, LLC does not operate a tank system required to meet the requirements for landfills; therefore, this section does not apply.

4. containment buildings that are required under LAC 33:V.1803 to meet the requirements for landfills.

Clean Harbors Colfax, LLC does not have any containment buildings required to meet the requirements for landfills; therefore, this section does not apply.

D. The administrative authority may replace all or part of the requirements of this Chapter (and the unit-specific standards referenced in LAC 33:V.3507.A.3 applying to a regulated unit), with alternative requirements set out in a permit or in an enforceable document (as defined in LAC 33:V.305.H), where the administrative authority determines that:

1. the regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2. it is not necessary to apply the closure requirements of this Chapter (and those referenced herein) because the alternative requirements will protect human health and the environment and will satisfy the closure performance standard of LAC 33:V.3507.A.1 and 2.

The facility recognizes the authority of LDEQ to act under this regulation in the event that these conditions are met.

3503. Notification of Intention to Close a Facility

A. At least 180 days prior to closure, the operator must notify the Office of Environmental Services, Permits Division of intention to close and supply the following information:

Clean Harbors Colfax, LLC will notify the administrative authority of the intention to close the facility. The notification will be in writing and will be submitted at least 180 days prior to closure of the facility.

1. date of planned closure;

The date of planned closure will be provided to the administrative authority in the Notification of Intention to Close. At this point, the facility is working under the assumption that the closure date will be July 1, 2024; however, this date is subject to review based on business conditions, LDEQ requirements, and other unknown factors.

2. requested changes, if any, in the closure plan submitted with the permit application, which take advantage of new technology, unforeseen situations, and other requests which improve the safety of the closed facility;

The notification will include requested changes, if any, in the closure plan submitted with the permit application, which take advantage of new technology, unforeseen situations, and other requests which improve the safety of the closed facility.

3. closure schedule and estimated costs of each phase of the closure plan; and

The notification will include a closure schedule and estimated costs of each phase of the closure plan.

4. *request for release of closure funds in amounts and times as required by the closure schedules.*

The facility will submit a request for release of closure funds in amounts and times as required by the closure schedules.

Subchapter A. Closure Requirements

3505. Closure Procedures

A. *If closure methods are unchanged from the plan approved with the permit, the administrative authority will acknowledge receipt of the notification to close and prepare appropriate documents which will be executed upon completion and acceptance of each phase of the closure plan so that funds can be released.*

B. *If the request is made to change the closure plan, the operator will submit revisions to the plan to the Office of Environmental Services, Permits Division, supported by necessary scientific and engineering data to permit evaluation by the department, and the procedures established in permit process will be followed in evaluating and approving the requested changes.*

All revisions to the closure plan requested by the facility will be accompanied by supporting scientific and engineering data to permit the administrative authority to evaluate the requested changes. The requested revisions will be prepared in accordance with the requirements of LAC 33:V.3503 through 3517, as applicable. Clean Harbors Colfax, LLC will not implement any significant changes to the closure plan until written approval from the administrative authority has been received.

3507. Closure Performance Standards

A. *In accordance with LAC 33:V.3509, the owner or operator must close his facility in a manner that:*

1. *minimizes the need for further maintenance; and*

2. *controls, minimizes, or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere; and*

The closure plan for the facility is designed to eliminate the need for further maintenance of the site and to prevent threats to human health and the environment after closure is completed. Clean Harbors Colfax, LLC will treat all wastes onsite, remove treatment by-products from the site for appropriate disposal at other permitted facilities, and clean close all structures and equipment used to store, handle, or treat the waste materials. After clean closure, structures and equipment may be recycled or reused. Disposal will comply with the Land Disposal Restrictions contained in LAC 33:V.Chapter 22. These activities will be completed in accordance with the closure plan detailed in this permit application and any approved revisions to the plan.

As part of the closure plan, surfaces within the limits of the treatment area will be visually examined for evidence of spilled wastes and of the treatment residues. Spilled waste will be removed and treated along with the remaining waste inventory. Spilled treatment residue, if any, will be collected, containerized, and removed to an appropriate offsite disposal facility permitted to receive such wastes. Surface water, groundwater and the atmosphere will not be affected after closure because all waste materials will be removed from the site.

The completion of the closure activities as described in the closure plan will eliminate any potential post-closure threats to human health and the environment as a result of the operation and closure of the facility.

3. complies with closure requirements of this Chapter, including, but not limited to, the requirements of LAC 33:V.1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203-3207.

The closure plan complies with the requirements of LAC 33:V.Chapter 35, as well as all other applicable regulations. As stated previously, all stored wastes will be treated onsite. Waste treatment by-products will be removed from the facility for disposal at a permitted waste disposal facility.

Structures and equipment used to store, treat, or handle the wastes, including the truck staging and ash container storage areas, will be cleaned. The level of clean-up proposed to meet the closure performance standard is discussed in Section 3511.B.4.

B. As a means of satisfying the closure requirements of Paragraph A.2 of this Section, the owner or operator may demonstrate an alternative risk-assessment-based closure in accordance with LAC 33:I.Chapter 13.

The facility recognizes this option but does not anticipate utilizing an alternate risk-assessment-based closure at this time.

3509. Closure Financial Responsibility

A. The operator shall submit, with the permit application, a closure plan which provides the estimated cost of closure, and post-closure monitoring including long-term monitoring devices, and the number of years of estimated operation before closure, and which is designed to minimize the need for future maintenance and to ensure against leakage or escape of hazardous waste.

The current estimated costs associated with final closure of the facility are presented as an attachment to the Closure Plan in Appendix L. Since no waste will remain at the site beyond closure, post-closure monitoring will not be necessary. The closure plan presented in Appendix L details the procedures regarding the treatment of remaining wastes, the removal of treatment residues, and the decontamination activities for all the waste management units at the site. There are no surface impoundments, waste piles, landfill disposal units, or land treatment units at this site.

Closure cost estimates are provided for the units. The closure cost estimates are based on the assumption that a full waste inventory will be stored and treated onsite and that treatment residues will be disposed offsite.

Scrap metal determined to be non-hazardous may be recycled; however, salvage values were not used in the closure cost estimate. The estimated costs are based on quotes from vendors, industry research, and recent experience with similar type projects.

At this time it is anticipated that an appropriate, approved and permitted landfill will be used to dispose of solid treatment residues for the purpose of this closure plan. Disposal will comply with the Land Disposal Restrictions contained in LAC 33:V.Chapter 22.

B. The operator shall create a "closure fund" under the requirements in LAC 33:V.Chapters 35 and 37.

Clean Harbors Colfax, LLC has provided an insurance policy establishing funding for closure of the site. A copy of the insurance certificate demonstrating coverage is included in Appendix N. Should another approved mechanism for closure be chosen by the facility before closure is complete, a copy of such mechanism will be submitted to the administrative authority.

The facility will adjust the closure cost estimate to account for inflation, as required, and will revise the coverage amount accordingly. The closure cost estimate will be revised no later than 30 days after approval of a requested change to the closure plan

if received in writing from the administrative authority and if the requested modification increases the estimated closure costs.

A copy of the most current closure cost estimate, and when this estimate has been adjusted, the latest adjusted closure cost estimate, will be maintained onsite during the operating life of the facility.

3511. Closure Plan; Amendment of Plan

A. Written Plan

1. The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by LAC 33:V.2911.D and 2315.C to have contingent closure plans. The plan must be submitted with the permit application, in accordance with LAC 33:V.517.M and approved by the administrative authority as part of the permit issuance procedures under LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit.

The attached closure plan includes closure procedures for the storage and treatment units. The facility recognizes that this closure plan will become a condition of the permit when it has been approved by the administrative authority. The facility also understands that approved revisions will become conditions of the permit.

Detailed closure procedures are presented in Section 3511.B. The following items are discussed below:

ITEM

- **A brief history of the hazardous waste management unit.**
- **Physical description, dimensions, construction details.**
- **Unit location on a plot plan.**
- **Cross-sectional drawings of the unit.**
- **Plant site location, topography, surrounding land use.**
- **Climate description, including precipitation.**
- **Geological soil profiles.**
- **Surface hydrology.**

History

The facility initiated operations in June 1985 to assist the Louisiana State Police in treatment of explosives. The hazardous waste management storage units consisted of ATF approved storage magazines. The thermal treatment units were concrete pots or steel troughs located on top of concrete pads.

The facility was contacted by both military and non-military personnel regarding the potential treatment of reactive materials. Reactives and explosives were treated by the facility under a series of Emergency Permits issued by the LDEQ until the final RCRA permit became effective in May 1993.

Description of Units

The storage units consist of ten storage magazines that are designed in accordance with requirements established by the Bureau of Alcohol, Tobacco, and Firearms. The magazines are 10 feet by 20 feet in area and 8 feet high. The interior roof, doors, floors, and walls are lined with hardwood paneling. Vents are installed in the walls and roofs to permit proper ventilation and to prevent the build-up of extreme heat or pressure.

Liquid storage magazines 8, 9 and 10 are equipped with 12-inch high thresholds at the door openings. The floor vents in these magazines are equipped with 12-inch high extensions.

All magazines are grounded to prevent the occurrence of an accidental fire or explosion from a lightning strike. The doors of the magazines are double locked with 5 tumbler locks and steel hoods. Drawing #'s 108-110 in Appendix B include typical cross sections of the magazines.

The thermal treatment area is constructed on a 700' by 130' reinforced concrete slab (6" thick). The thermal treatment units consist of twenty (20) concrete curbed treatment pads atop the slab, each equipped with an interchangeable burner assembly. The burner assemblies consist either of an open steel pan or a steel-lined concrete burn chamber. The open steel pans are constructed of 3/16-inch (minimum) steel with eight-inch high sidewalls. The concrete burn chambers are constructed of 48-inch (inside diameter) reinforced concrete pipe. They are four feet high and equipped with a 14-gauge steel cover plate. Each of the treatment units is equipped with a retractable roof structure to prevent rainfall accumulation.

The preparation building is 40 feet wide by 40 feet long in plan with a concrete apron at the entrance. The structure is enclosed on three sides with a roll-up door on the front. The polyethylene washwater tank is located on the perimeter of the main floor area for this unit. The preparation building is supplied with electric power to operate the drill press and band saw used for preparation activities. All electrical switches, motors, controls, and lights conform to the requirements of Class II, Division 2 of the National Electric Code. The building floor plan is shown on Drawing #'s 111-113 in Appendix B.

A covered truck staging/parking area is provided for overnight parking within the fenced treatment area. The staging/parking area consists of 4 bays constructed of

reinforced concrete. Each bay is self-contained with raised curbs and sumps. Drawing # 107 in Appendix B shows the foundation plan and details for this unit.

The liquid storage magazines loading/unloading unit is a reinforced concrete secondary containment area located adjacent to storage magazines 8, 9 and 10. This area is covered to minimize precipitation accumulation and is designed to contain spilled liquid. The concrete base is sloped toward a centralized sump and raised curbs are located on the perimeter. Drawing # 103 in Appendix B includes the foundation plan and details.

Facility and Unit Locations

The facility is located on the east side of LA Highway 471, approximately four miles north of Colfax in Grant Parish, Louisiana. Drawings #'s 102-104 in Appendix B include the location of the facility and the surrounding topography. These drawings also depict the facility property boundary and the location of the treatment and storage units.

The land surrounding the facility boundary is primarily agricultural, undeveloped property. There are small pockets of residential and commercial use properties within a 2-mile radius of the facility to the south, west and east.

Climate Description

Appendix O contains historical climatic data for the Alexandria, Louisiana area. Both temperature and precipitation data are provided as well as summary data. Appendix O also includes wind roses for weather service stations bracketing the site showing prevailing wind direction.

Appendix N also shows the paths of hurricanes that have crossed the state in the past. Landfalling hurricanes typically lose much of their strength prior to moving far inland. It is extremely unlikely that a hurricane will maintain its hurricane force winds (> 74 mph) until it reaches Grant Parish.

Geological Soil Profiles

In 1993 a hydrogeological investigation was conducted in the vicinity of the thermal treatment units. Appendix U contains geologic cross sections and a fence diagram showing soil stratigraphy at the facility. The locations of the boreholes included in the investigation are shown on the Upper Aquifer Potentiometric Surface Map provided with this attachment.

Surface Hydrology

The majority of the facility is located in rolling hill topography with natural, intermittent drainage features. Much of the facility and adjoining property contains pines and hardwood trees.

Runoff from the thermal treatment area flows north to northwest and joins other intermittent streams to form Summerfield Branch. Summerfield Branch flows toward the northwest into Bayou Grappe. Bayou Grappe meanders from the northwest to the southeast where it splits into several bayous that eventually empty into the Red River.

The 100-Year Floodplain limits for the geographic area containing the treatment facility are indicated on the copy of the FEMA map that is included in Appendix O. The FEMA map that includes the site is Community No. 220076, Panel 0115C, Flood Insurance Rate Map. As indicated on the FEMA map, the facility is outside of the 100-Year Floodplain limits.

2. *The administrative authority's approval of the plan must ensure that the approved closure plan is consistent with LAC 33:V.3507, 3511-3517, and the applicable requirements of LAC 33:V.Chapter 33, 1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203. Until final closure is completed and certified in accordance with LAC 33:V.3517, a copy of the approved plan and all approved revisions must be furnished to the administrative authority upon request, including request by mail.*

Clean Harbors Colfax, LLC will maintain a copy of the closure plan and all approved revisions onsite during the operating life and closure of the facility. A copy of the closure plan and revisions will be supplied to the administrative authority at its request.

B. *Content of Plan. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:*

1. *a description of how each hazardous waste management unit at the facility will be closed in accordance with LAC 33:V.3507;*

The Closure Plan is included as a stand-alone document in Appendix L. It includes a detailed description of how each hazardous waste management unit at the facility will be closed in accordance with LAC 33:V.V.3507.

2. *a description of how final closure of the facility will be conducted in accordance with LAC 33:V.3507. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and*

The maximum extent of operations that will be active during the life of the facility is the storing of the wastes in the ten storage magazines, ash storage in the ash container storage area, the use of the preparation building, and the treating of wastes in the twenty open burners. The truck staging and containment areas will only be used for temporary staging of trucks waiting to unload and will not be used to hold waste inventory.

Final closure of the facility will occur when all stored wastes have been treated, treatment by-products have been removed from the site, and all waste management units have been cleaned. The storage magazines and preparation building will remain in service until all stored wastes have been prepared and removed for treatment. The open burners will remain in service until all onsite wastes, storage magazine wood interiors, and spill residues have been treated.

The ash container storage area will be closed after all ash, spill residue and burner units have been removed from site. The truck staging and containment areas will no longer be required for receiving wastes when closure is initiated; however, they will remain in service for equipment decontamination as required until closure of other areas/units is complete.

3. *an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and*
4. *a detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;*

The maximum inventory of untreated waste that would be onsite at any time during the operating life of the facility is 55,950 pounds. This value assumes all magazines are full, the burn pads are loaded, the preparation building has a full day's burn in processing, and the truck unloading area has a full day's burn

waiting to be unloaded. The specific activities required to meet the closure performance standard for existing and proposed units are discussed below.

At closure the wastes stored in the magazines will be removed to other magazines or the preparation building, then treated in the burners. Untreated material spilled during the preparation and treatment procedures will be collected immediately and burned. Any ash residue generated from treatment will be collected and containerized for proper disposal at an appropriate facility. Disposal of all hazardous waste targeted for offsite disposal will comply with the Land Disposal Restrictions contained in LAC 33:V.Chapter 22.

The detailed closure plan for the units is included as a stand alone document in Appendix L.

5. *a detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground water monitoring, leachate collection, and run-on and run-off control;*

No ground water monitoring, leachate collection or other such activities will be necessary for final closure. Other activities associated with final closure of the facility will be to remove all warning signs posted for the protection of the persons present in, nearby, or entering the facility. All associated appurtenances, such as fences and outbuildings, and the water reservoir, may remain in-place or be removed as the owner chooses.

Upon closure, the waste management activities at the facility will cease, and all units utilized to treat or store wastes will be cleaned. The air monitoring weather station will cease operations once open burning activities are complete. Run-on and run-off control of surface drainage are not applicable to this facility subsequent to closure.

6. *a schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure (for example, in the case of a landfill, unit estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included); and*

The time and activities required to complete final closure of the facility are included in the stand alone Closure Plan located in Appendix L.

7. *for facilities that use trust funds to establish financial assurance LAC 33:V.3707 and 3711 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and*

Clean Harbors Colfax, LLC does not expect to close prior to the expiration of the permit; therefore, this section is not applicable.

8. *for facilities where the administrative authority has applied alternative requirements at a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D, either the alternative requirements applying to the regulated unit or a reference to the enforceable document containing those alternative requirements.*

This section is not applicable since the administrative authority has not applied alternative requirements at a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D.

C. *Amendment of Plan. The owner or operator must submit to the Office of Environmental Services, Permits Division a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in LAC 33:V.Chapters 3 and 7. The written notification or request must include a copy of the amended closure plan for review or approval by the administrative authority.*

Any revision that affects the operation of the facility, facility design, or the closure plan will be submitted in writing to the administrative authority. The requests for revision will be accompanied by supporting engineering and scientific data and calculations, as appropriate, to permit the administrative authority to evaluate the proposed change. A copy of the revised closure plan will be submitted to the administrative authority for its review. The facility will not implement any significant revisions until written approval from the administrative authority has been received.

1. *The owner or operator may submit a written notification or request to the to the Office of Environmental Services, Permits Division for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.*

The facility may submit a request to amend the closure plan at any time during the operating life of the facility. The amendment request will be made prior to any notification of partial closure activity or final closure of the facility.

2. *The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:*

   a. *changes in operating plans or facility design affect the closure plan; or*

The facility will submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever changes in operating plans or facility design affect the closure plan.

   b. *there is a change in the expected year of closure, if applicable; or*

If the date of closure changes, the facility will submit a new estimated closure date and reasons for the change.

   c. *in conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.*

If unexpected conditions develop affecting the partial or final closure plans, the facility will submit, in writing, a description of the unexpected condition, the modifications required of the closure plan, and supporting documentation.

3. *The owner or operator must submit to the Office of Environmental Services, Permits Division a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under LAC 33:V.2911.D or 2315.D must submit an amended closure plan to the Office of Environmental Services, Permits Division no later than 60 days from the date that the owner or operator or administrative authority determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of LAC 33:V.2521, or no later than 30 days from that date if the determination is made during partial closure or final closure. The administrative authority will approve, disapprove, or*

modify this amended plan in accordance with the procedures in LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit issued.

In accordance with LAC 33:V.3511, a written request for an amendment to the permit will be submitted to the administrative authority at least 60 days before the facility plans to implement the change. A copy of the amended closure plan and supporting documentation will accompany the revision request. If an unexpected condition develops that necessitates a change to the permit, the written request for an amendment, amended closure plan, and documentation will be made no later than 30 days after the event occurs.

Clean Harbors Colfax, LLC understands that the administrative authority must approve an amendment to the closure plan and that the modified closure plan will become a condition of the permit. A copy of the amended closure plan will be maintained onsite until final closure of the facility is completed.

4. *The administrative authority may request modifications to the plan under the conditions described in LAC 33:V.3511.A.2. The owner or operator must submit the modified plan within 60 days of the administrative authority's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the administrative authority will be approved in LAC 33:V.Chapters 3 and 7.*

The facility will respond no later than 60 days after receipt of a written request from the administrative authority to modify the closure plan. This response period will be reduced to 30 days if the written request is a result of a change in the facility conditions that occurs during partial or final closure. The facility will submit a copy of the modified closure plan with supporting documentation, as appropriate.

5. *The owner or operator requests the administrative authority to apply alternative requirements to a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D.*

The facility does not anticipate that this regulation will become applicable.

D. Notification of Partial Closure and Final Closure

1. *The owner or operator must notify the Office of Environmental Services, Permits Division in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or operator must notify the Office of Environmental Services, Permits Division in writing at least 45 days*

prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator must notify the Office of Environmental Services, Permits Division in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

In accordance with LAC 33:V.3511, Clean Harbors Colfax, LLC will notify the administrative authority at least 45 days in advance of the date that it expects to begin final closure of the facility.

2. *The date when he or she "expects to begin closure" must be one of the following:*

   a. *No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the administrative authority that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he or she has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the administrative authority may approve an extension to this one-year limit.*

Final closure activities for the units will be initiated within 30 days after receipt of the final volume of wastes. All closure activities for the units, including inspections and final certification, will be completed within 180 days after the receipt of the final volume of reactive waste.

   b. *For units meeting the requirements of LAC 33:V.3513.D, no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the administrative authority that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he or she has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the administrative authority may approve an extension to this one-year limit.*

The operator does not operate a landfill, land treatment, or surface impoundment; therefore, the facility does not meet the requirements of LAC 33:V.3513.D, and this section is not applicable.

3. *If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under R.S. 30:2025, to cease receiving hazardous wastes or to close, then the requirements of this Paragraph do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in LAC 33:V.3513.*

Clean Harbors Colfax, LLC will close the facility if the operating permit is terminated, if the site is ordered to no longer receive wastes, or if it is closed by judicial decree or final order under R.S. 30:2025. Clean Harbors Colfax, LLC understands that the notification requirements of Paragraph D of LAC 33:V.3511 do not apply to this situation. Final closure of the facility will proceed in accordance with the schedule presented in the Closure Plan.

E. Removal of Wastes and Decontamination or Dismantling of Equipment. Nothing in this Section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

All partial closure and final closure activities will be carried out according to the approved closure plan including any amendments. The administrative authority will be notified in regard to closure as stated in this plan.

3513. Closure; Time Allowed for Closure

A. Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator receives administrative authority allowance pursuant to LAC 33:V.3513.D and complies with all applicable requirements in LAC 33:V.3513.D and E, at a hazardous waste management unit or facility, the owner or operator must treat, remove from the facility or unit, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The administrative authority may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

All stored wastes will be treated and the resulting treatment residues will be removed offsite within 90 days after receiving the final volume of reactive waste. Treatment and removal activities will proceed in accordance with the approved closure plan, including approved revisions.

1. *the activities required to comply with this Paragraph will, of necessity, take longer than 90 days to complete, or*

The operator does not expect these activities to require more than 90 days to complete although if this necessity should arise, the facility will request an appropriate modification to the closure schedule.

2. *the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator receives administrative authority allowance pursuant to LAC 33:V.3513.D and complies with LAC 33:V.3513.D and E, and there is a reasonable likelihood that he or another person will recommence operation of the site, as provided in LAC 33:V.321; and*

Clean Harbors Colfax, LLC does not anticipate requiring an extension to receive additional wastes.

3. *closure of the facility would be incompatible with continued operation of the site; and*

The waste management operations of the site would cease after the final volume of wastes was treated. Continued operation of the site is not anticipated.

4. *the owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment.*

Clean Harbors Colfax, LLC does not anticipate requiring an extension of the 90-day period. In the event that such an extension is requested, the facility will submit a request, along with supporting documentation in writing to the administrative authority. The documentation will include a description of the steps taken to protect the health and welfare of the public and the environment from activities related to the operation of the facility. These steps will include collection and treatment of spilled wastes in the storage and treatment areas, disposal of treatment residue offsite at an approved facility, and cleaning the reactive waste management units.

B. *The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the*

final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in LAC 33:V.3513.D and E, at the hazardous waste management unit or facility. The administrative authority may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a permit modification and demonstrates that:

The facility will be closed within 180 days after the receipt of the final reactive waste volume.

1. *the partial or final closure activities will, of necessity, take longer than 180 days to complete; or*

Clean Harbors Colfax, LLC does not anticipate requiring more than 180 days to complete either partial or final closure, although if this necessity should arise, the facility will request an appropriate modification to the closure schedule.

2. *the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes or has the capacity to receive non-hazardous wastes if the owner or operator complies with LAC 33:V.3513.D and E; and*

Clean Harbors Colfax, LLC does not anticipate that it will require an extension to receive additional wastes.

3. *there is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit within one year, as provided in LAC 33:V.321; and*

Once closed, the facility is not likely to be re-opened by Clean Harbors Colfax, LLC or by another entity.

4. *closure of the facility would be incompatible with continued operation of the site; and*

The operations at the treatment facility will cease as part of the final closure activities.

5. *he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed, but inactive hazardous waste management unit including compliance with all applicable permit conditions.*

All waste management units will be deactivated and cleaned in accordance with the final closure plan. However, should the facility require an extension to the 180 day period, a request with supporting documentation will be submitted to the administrative authority for approval. The documentation will describe the steps that the facility has taken to ensure the protection of the public and environment from the inactive waste management units. These steps will include cleaning the units during the inactive phase to remove all residues due to waste treatment activities and collecting and treating spilled reactive wastes in the storage and treatment areas.

C. *The demonstrations referred to in LAC 33:V.3513.A and B must be made as follows:*

1. *the demonstrations in Subsection A must be made at least 30 days prior to the expiration of the 90-day period in Subsection A; and*

If necessary, Clean Harbors Colfax, LLC will submit such a request in writing to the administrative authority no later than 30 days before the expiration of the 90-day period.

2. *the demonstration in LAC 33:V.3513.B must be made at least 30 days prior to the expiration of the 180-day period in LAC 33:V.3513.B, unless the owner or operator is otherwise subject to the deadlines in LAC 33:V.3513.D.*

If necessary, Clean Harbors Colfax, LLC will submit a request to extend the 180-day period in writing to the administrative authority no later than 30 days before the expiration of the 180-day period.

D. *The administrative authority may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if the following conditions are met.*

1. *The owner or operator requests a permit modification in compliance with all applicable requirements in LAC 33:V.Chapters 1, 3, 5, 7, 27, 31, and 43, and in the permit modification request demonstrates that:*

a. *the unit has the existing design capacity as indicated on the Part I application to receive non-hazardous wastes;*

b. there is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes;

c. the nonhazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, and 37;

d. closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

e. the owner or operator is operating and will continue to operate in compliance with all applicable permit requirements.

2. The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under LAC 33:V.503.A, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes and changes in closure activities, including the expected year of closure if applicable under LAC 33:V.3511.B.7, as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes.

3. The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes.

4. The request to modify the permit and the demonstrations referred to in LAC 33:V.3513.D.1 and 2 are submitted to the administrative authority no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this rule, whichever is later.

Clean Harbors Colfax, LLC does not operate a landfill, land treatment, or a surface impoundment; therefore, the entirety of LAC 33:V.3513.D. is not applicable.

E. In addition to the requirements in LAC 33:V.3513.D, an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in LAC 33:V.Chapter 29 must do the following.

1. Submit to the Office of Environmental Services, Permits Division with the request to modify the permit:

a. a contingent corrective measures plan, unless a corrective action plan has already been submitted under LAC 33:V.3319; and

b. a plan for removing hazardous wastes in compliance with LAC 33:V.3513.E.2.

2. *Remove all hazardous wastes from the unit by removing all hazardous liquids and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.*

3. *Removal of hazardous wastes must be completed no later than 90 days after the final receipt of hazardous wastes. The administrative authority may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.*

4. *If a release that is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's groundwater protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in LAC 33:V.Chapter 33, the owner or operator of the unit:*

   a. *must implement corrective measures in accordance with the approved contingent corrective measures plan required by LAC 33:V.3513.E.1 no later than one year after detection of the release or approval of the contingent corrective measures plan, whichever is later;*

   b. *may continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and*

   c. *may be required by the administrative authority to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.*

5. *During the period of corrective action, the owner or operator shall provide semiannual reports to the administrative authority that describe the progress of the corrective action program, compile all groundwater monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.*

6. *The administrative authority may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in LAC 33:V.3513.E.4, or fails to make substantial progress in implementing corrective action and achieving the facility's groundwater protection standard or background levels if the facility has not yet established a groundwater protection standard.*

7. *If the owner or operator fails to implement corrective measures as required in LAC 33:V.3513.E.4, or if the administrative authority determines that substantial progress has not been made pursuant to LAC 33:V.3513.E.6, he or she shall do the following.*

   a. *The administrative authority will notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadlines in*

LAC 33:V.3513.A and B, and provide a detailed statement of reasons for this determination.

b. *The administrative authority will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.*

c. *If the administrative authority receives no written comments, the decision will become final five days after the close of the comment period. The administrative authority will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within 15 days of the final notice, and that closure must begin in accordance with the deadlines in LAC 33:V.3513.A and B.*

d. *If the administrative authority receives written comments on the decision, he or she shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice with a detailed statement of reasons for the final decision. If the administrative authority determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in LAC 33:V.3513.A and B.*

e. *The final determinations made by the administrative authority under LAC 33:V.3513.E.7.c and d are not subject to administrative appeal.*

Clean Harbors Colfax, LLC does not operate a surface impoundment; therefore, the entirety of LAC 33:V.3513.E. is not applicable.

3515. Disposal or Decontamination of Equipment, Structures and Soils

A. During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in LAC 33:V.1803, 1915, 2315, 2521, 2719, 2809, and 2911, or under the authority of LAC 33:V.3203 and 3207. By removing any hazardous waste or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of LAC 33:V.Chapter 11.

Ash, burners, and treatment residues from burner units which treated listed wastes will be considered hazardous wastes and will be handled in accordance with Chapter 11 requirements. In addition, washwaters resulting from closure may require being handled as hazardous waste.

3517. Certification of Closure

A. Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of

the completion of final closure, the owner or operator must submit to the Office of Environmental Services, Permits Division, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for closure under LAC 33:V.3707.

Clean Harbors Colfax, LLC will submit the appropriate closure certification documentation within the appropriate time-frame.

B. Survey Plat. No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Office of Environmental Services, Permits Division, a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Chapter 35 regulations.

Since no on-site disposal of hazardous waste occurs, a survey plat is not required to be submitted for this site.

Subchapter B. Post-Closure Requirements

3519. Post-Closure Procedures

A. Any proposed transfer of ownership of the property shall be reported to the administrative authority at least 60 days prior to execution of such sale.

B. The administrative authority must approve any new owner. Criteria for approval includes agreement to land use restrictions necessary to protect public health and financial responsibility covering liability due to change in land use.

C. The administrative authority will conduct an annual evaluation of the site for the period of post-closure.

No post-closure activities will be required at this facility.

3521. Post-Closure Care and Use of Property

A. Length of Post-Closure

1. Post-closure care for each hazardous waste management unit subject to the requirements of LAC 33:V.3519-3527 must continue for at least 30 years after the date of completing closure of that unit and must consist of at least the following:

a. monitoring and reporting in accordance with the requirements of LAC 33:V.Chapters 23, 25, 27, 29, 32 and 33; and

b. maintenance and monitoring of waste containment systems in accordance with the requirements of LAC 33:V.Chapters 23, 25, 27, 29, 32 and 33.

2. Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the administrative authority may, in accordance with the permit modification procedures in LAC 33:V.321:

a. shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

b. extend the post-closure care period applicable to the hazardous waste management unit or facility if he finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

3. The owner or operator may elect to demonstrate a shortened post-closure care period meets the requirements of Subparagraph A.2.a of this Section by using risk assessment methodology. The risk assessment must demonstrate that the shortened post-closure care period is protective of human health and the environment in accordance with LAC 33:I.Chapter 13.

B. The administrative authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507 during part or all of the post-closure period when:

1. hazardous wastes may remain exposed after completion of partial or final closure; or

2. access by the public or domestic livestock may pose a hazard to human health.

C. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the administrative authority finds that the disturbance:

1. *is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or*

2. *is necessary to reduce a threat to human health or the environment.*

D. *All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in LAC 33:V.3525.*

Post-closure procedures do not apply to this site. No wastes will remain onsite after closure. The facility stores and treats wastes and is not a disposal facility.

3523. Post-Closure Plan, Amendment of Plan

A. *Written Plan. The owner or operator of a hazardous waste disposal unit must have a written post-closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by LAC 33:V.2911.D and 2315.C to have contingent post-closure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure plans under LAC 33:V.2315.C and 2911.D must submit a post-closure plan to the Office of Environmental Services, Permits Division within 90 days from the date that the owner or operator or administrative authority determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of LAC 33:V.3519-3527. The plan must be submitted with the permit application, in accordance with LAC 33:V.517.P, and approved by the administrative authority as part of the permit issuance procedures under these regulations. In accordance with LAC 33:V.311 the approved post-closure plan will become a condition of any hazardous waste permit issued.*

B. *For each hazardous waste management unit subject to the requirements of this Section, the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:*

1. *a description of the planned monitoring activities and frequencies at which they will be performed to comply with LAC 33:V.Chapters 23, 25, 27, 29, 32 and 33 during the post-closure care period; and*

2. *a description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:*

   a. *the integrity of the cap and final cover or other containment systems in accordance with the requirements of LAC 33:V.Chapters 23, 25, 27, 29, 32 and 33; and*

   b. *the functioning of the monitoring equipment in accordance with the requirements of LAC 33:V.Chapters 23, 25, 27, 29, 32, and 33;*

3. *the name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period ; and*

4. *for facilities where the administrative authority has applied alternative requirements at a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D, either the alternative requirements that apply to the regulated unit or a reference to the enforceable document containing those requirements.*

C. *Until final closure of the facility, a copy of the approved post-closure plan must be furnished to the administrative authority upon request, including request by mail. After final closure has been certified, the person or office specified in LAC 33:V.3525 must keep the approved post-closure plan during the remainder of the post-closure period.*

D. *Amendment of Plan. The owner or operator must submit to the Office of Environmental Services, Permits Division a written notification of or request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements of LAC 33:V.Chapters 3 and 7. The written notification or request must include a copy of the amended post-closure plan for review or approval by the administrative authority.*

1. *The owner or operator may submit a written notification or request to the Office of Environmental Services, Permits Division for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.*

2. *The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan whenever:*

   a. *changes in operating plans or facility design affect the approved post-closure plan; or*

   b. *there is a change in the expected year of final closure, if applicable; or*

   c. *events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan; or*

   d. *the owner or operator requests the administrative authority to apply alternative requirements to a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D.*

3. *The owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at a closure and is not otherwise required to submit a contingent post-closure plan under LAC 33:V.2911.D and 2315.C must submit a post-closure plan to the Office of Environmental Services, Permits Division no later than 90 days after the date that the owner or operator or administrative authority determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of LAC 33:V.2521. The*

administrative authority will approve, disapprove or modify this plan in accordance with the procedures in LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved post-closure plan will become a permit condition.

4. *The administrative authority may request modifications to the plan under the conditions described in LAC 33:V.3523.D.2. The owner or operator must submit the modified plan no later than 60 days after the administrative authority's request or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure plan. Any modifications requested by the administrative authority will be approved, disapproved, or modified in accordance with the procedures in LAC 33:V.Chapters 3 and 7.*

E. *Certification of Completion of Post-closure Care. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Office of Environmental Services, Permits Division, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under LAC 33:V.3711.I.*

Clean Harbors Colfax, LLC does not operate a disposal unit, surface impoundments, or waste piles; therefore, none of the requirements of LAC 33:V.3523 apply.

3525. Post-Closure Notices

A. *No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Office of Environmental Services, Permits Division a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.*

B. *Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:*

1. *record, in accordance with state law, a notation on the deed to the facility property or on some other instrument which is normally examined during the title search—that will in perpetuity notify any potential purchaser of the property that:*

   a. *the land has been used to manage hazardous wastes; and*

b. its use is restricted under LAC 33:V.Chapter 35; and

c. the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by LAC 33:V.3517 and this Section have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the administrative authority; and

2. submit a certification, signed by the owner or operator, that he has recorded the notation specified in Paragraph B.1 of this Section, including a copy of the document in which the notation has been placed, to the administrative authority.

C. If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in LAC 33:V.Chapters 3 and 7. The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of LAC 33:V.3521. By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of this Chapter. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the administrative authority approve either:

1. the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

2. the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

Clean Harbors Colfax, LLC does not operate a disposal unit; therefore, none of the requirements of LAC 33:V.3525 apply.

3527. Certification of Completion of Post-Closure Care

A. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Office of Environmental Services, Permits Division, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under LAC 33:V.3711.I.

No post closure period is planned at this time.

Chapter 37
Financial Requirements

3701. Applicability

A. The requirements of this Chapter apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this Part.

The facility acknowledges the applicability of this Chapter.

B. The requirements of LAC 33:V.3709 and 3711 apply only to owners and operators of:

1. disposal facilities;

2. piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in LAC 33:V.Chapters 23 and 29;

3. tank systems that are required under LAC 33:V.1915 to meet the requirements for landfills; and

4. containment buildings that are required under LAC 33:V.1803 to meet the requirements for landfills.

Clean Harbors Colfax, LLC does not own or operate any of the types of facilities described in LAC 33:V.3701.B.1-4; therefore, the requirements of LAC 33:V.3709 and 3711 do not apply.

C. States and the federal government are exempt from the requirements of this Chapter.

[Comment: The permit application should include a description of the financial structure of the operating unit including capital structure, principal ownership, and insurance coverage for personal injury and property damage.]

The facility is privately owned and is not exempt based from the requirements of this Chapter based on this regulation.

D. The administrative authority may replace all or part of the requirements of this Chapter applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document (as defined in LAC 33:V.305.H), where the administrative authority:

1. *prescribes alternative requirements for the regulated unit under LAC 33:V.3301.G and/or 3501.D; and*

2. *determines that it is not necessary to apply the requirements of this Chapter because the alternative financial assurance requirements will protect human health and the environment.*

The facility recognizes the administrative authority's rights under this regulation and will comply with it to the extent that it becomes applicable.

§3703. Definitions of Terms as Used in This Chapter

A. General Terms

1. *Closure Plan—the plan for closure prepared in accordance with the requirements of LAC 33:V.Chapter 35.*

2. *Current Closure Cost Estimate—the most recent of the estimates prepared in accordance with LAC 33:V.3705.A-C.*

3. *Current Post-Closure Cost Estimate—the most recent of the estimates prepared in accordance with LAC 33:V.3709.A-C.*

4. *Parent Corporation—a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a subsidiary of the parent corporation.*

5. *Post-Closure Plan—the plan for the post-closure care prepared in accordance with the requirements of LAC 33:V.Chapter 35.*

6. *The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.*

   a. *Assets—all existing and all probable future economic benefits obtained or controlled by a particular entity.*

   b. *Current Assets—cash or other assets, or resources commonly identified as those which are reasonably expected to be realized in cash, or sold, or consumed during the normal operating cycle of the business.*

   c. *Current Liabilities—obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.*

   d. *Independently Audited—refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.*

e. *Liabilities—probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.*

f. *Net Working Capital—current assets minus current liabilities.*

g. *Net Worth—total assets minus total liabilities and is equivalent to owner's equity.*

h. *Tangible Net Worth—the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.*

7. *Current Plugging and Abandonment Cost Estimates—most recent cost estimates prepared in accordance with 40 CFR 144.62a, b, and c, required by the Office of Conservation, or any other substantially equivalent state program.*

8. *Substantial Business Relationship—the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the applicable administrative authority.*

B. *Insurance-related Terms. In the liability insurance requirements the terms bodily injury and property damage shall have the meanings given these terms by applicable state law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The meanings of other terms used in the liability insurance requirements are to be consistent with their common meanings within the insurance industry. The definitions of several of the terms given below are intended to assist in the understanding of these regulations and are not intended to limit their meaning in a way that conflicts with general insurance industry usage.*

1. *Accidental Occurrence—an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.*

2. *Legal Defense Costs—any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.*

3. *Nonsudden Accidental Occurrence—an occurrence which takes place over time and involves continuous or repeated exposure.*

4. *Sudden Accidental Occurrence—an occurrence which is not continuous or repeated in nature.*

The facility acknowledges the applicability of these definitions with regard to this section.

Subchapter A. Closure Requirements

3705. Cost Estimate for Closure

A. The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in LAC 33:V.3503-3517 and applicable closure requirements in LAC 33:V.1803, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203-3207.

Clean Harbors Colfax, LLC has included in its Closure Plan a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements of LAC33:V.3503-3517 and applicable closure requirements in LAC 33:V.1803, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203-3207.

1. The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see LAC 33:V.3511.B); and

The closure cost estimate assumes that the expected maximum amount of waste is present onsite when closure activities begin. The maximum expected amount of waste is 55,950 pounds net explosive weight, based on all magazines being full, the burn area loaded for ignition, and a full day's burn being both in preparation and in trucks awaiting unloading.

2. The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of owner or operator in LAC 33:V.3703.A. The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

The labor and material costs assume that closure is completed by a third party that is neither a parent nor a subsidiary of the corporation operating the facility. Onsite disposal costs do not apply. The non-hazardous treatment residues are shipped offsite for disposal. The facility will continue to have the on-site disposal capacity needed to manage the remaining inventory on-site because the facility does not have a life-time capacity limitation. Thus, the only limiting factor related to capacity is an annual throughput limit. The physical disposal capacity of the facility never changes regardless of how much material is processed and is unaffected by the date of closure and the amount of wastes on-site at that time.

Therefore, it should be clear that on-site disposal capacity will be available as needed to manage the remaining inventory.

3. *The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes or non-hazardous wastes if applicable under LAC 33:V.3513.D, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.*

The closure cost estimate does not include any potential earnings from sales of the onsite storage, preparation or treatment structures, or equipment or property within the facility boundaries.

4. *The owner or operator may not incorporate a zero cost for hazardous wastes or non-hazardous wastes if applicable under LAC 33:V.3513.D, that might have economic value.*

No untreated hazardous waste will remain onsite at closure. The zero cost factor does not apply to this facility and is not included in the closure costs.

B. *During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with LAC 33:V.3707. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the administrative authority as specified in LAC 33:V.3707.F. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in LAC 33:V.3705.B.1 and 2. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.*

1. *The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.*
2. *Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.*

Clean Harbors Colfax, LLC has established a financial mechanism in accordance with LAC 33:V.3707. Each year, within 60 days prior to the anniversary date of the establishment of the financial instrument used to comply with LAC 33:V.3707, the cost estimate is adjusted for inflation. Typically, the adjustment is made by recalculating the closure costs in current dollars or by using the inflation factor defined in LAC 33:V.3705.B and applying it in

accordance with LAC 33:V.3795.B 1 and 2. A complete breakdown of the Closure Cost Estimate and the means for funding this amount are included in Appendix N.

C. During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the administrative authority has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in LAC 33:V.3705.B.

The facility will submit revised closure cost estimates, if these costs change, within 30 days after receiving approval from the administrative authority to modify the closure plan. The revised closure cost estimate will be adjusted for inflation as described above in LAC 33:V.3705.B.

D. The owner or operator must keep, at the facility during the operating life of the facility, the latest closure cost estimate prepared as specified in LAC 33:V.3705.A and C and, when this estimate has been adjusted as specified in LAC 33:V.3705.B, the latest adjusted closure cost estimate. The cost estimate must be available to the administrative authority by mail request also.

The closure plan and the closure cost estimate with current revisions from plan modifications or adjustments for inflation will be maintained at the facility until closure of the facility is complete. The closure plan and current cost estimates will be made available at all reasonable times, as well as by mail, to the administrative authority at its request.

3707. Financial Assurance for Closure

[NOTE: An owner or operator of each facility must establish financial assurance for closure of the facility. Under this Part, the owner or operator must choose from the options as specified in LAC 33:V.3707.A-F, which choice the administrative authority must find acceptable based on the application and the circumstances.]

A. Closure Trust Fund

1. An owner or operator may satisfy the requirements of this Part by establishing a closure trust fund which conforms to the requirements of this Subpart, and submitting an originally signed duplicate of the trust agreement to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee must be an

entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

2. *The wording of the trust agreement must be identical to the wording specified in LAC 33:V.3719.A.1, and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see LAC 33:V.3719.A.2). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.*

3. *Payments into the trust fund must be made annually by the owner or operator over the term of the initial permit, or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund must be made as follows:*

   a. *For a new facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the administrative authority before this initial receipt of hazardous waste. The first payment must be at least equal to the current closure cost estimate, except as provided in LAC 33:V.3707.G divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:*

$$\text{Next Payment} = \frac{CE - CV}{Y}$$

where:

CE = current closure cost estimate,

CV = current value of the trust fund, and

Y = number of years remaining in the pay-in period.

   b. *If an owner or operator has previously established a trust fund as specified in LAC 33:V.4403.A and the value of that trust fund is less than the current closure cost estimate when a permit under these regulations is awarded for the facility, then the amount of the current closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in LAC 33:V.3707.A.3. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made. The amount of each payment must be determined by this formula:*

$$\text{Next Payment} = \frac{CE - CV}{Y}$$

where:

CE = current closure cost estimate,

CV = current value of the trust fund, and

Y = number of years remaining in the pay-in period.

4. *The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in LAC 33:V.3707.A.3.*

5. *If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this Section or in LAC 33:V.4403, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this Section and LAC 33:V.4403.A, as applicable.*

6. *After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this Section to cover the difference.*

7. *If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Office of Management and Finance, Financial Services Division for release of the amount in excess of the current closure cost estimate.*

8. *If an owner or operator substitutes other financial assurance as specified in this Part for all or part of the trust fund, he may submit a written request to the Office of Management and Finance, Financial Services Division for release of the amount in excess of the current closure cost estimate covered by the trust fund.*

9. *Within 60 days after receiving a request from the owner or operator for release of funds as specified in LAC 33:V.3707.A.7 and A.8, the administrative authority will instruct the trustee to release to the owner or operator such funds as the administrative authority specifies in writing.*

10. *After beginning partial or final closure, an owner or operator, or any other person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the administrative authority. The owner or operator may request reimbursement for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its operating life. Within 60 days after receiving bills for partial or final closure activities, the administrative authority will instruct the trustee to make reimbursements in those amounts as the administrative authority specifies in writing, if the administrative authority determines that the partial or final closure expenditures are in accordance with*

the approved closure plan, or otherwise justified. If the administrative authority has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with this Section, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the administrative authority does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

11. The administrative authority will agree to termination of the trust when:

a. an owner or operator substitutes alternate financial assurance as specified in this Part; or

b. the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.

B. Surety Bond Guaranteeing Payment Into a Closure Trust Fund

1. An owner or operator may satisfy the requirements of this Part by obtaining a surety bond which conforms to the requirements of this Paragraph and submitting the bond to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the bond to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury, and approved by the administrative authority.

2. The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.B.

3. The owner or operator who uses a surety bond to satisfy the requirements of this Part must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust fund must meet the requirements specified in LAC 33:V.3707.A except that:

a. an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the surety bond; and

b. until the standby trust fund is funded pursuant to the requirements of this Part, the following are not required by these regulations:

i. payments into the trust fund as specified in LAC 33:V.3707.A;

ii. updating of Schedule A of the trust agreement to show current closure cost estimates;

iii. annual valuations as required by the trust agreement; and

iv. notices of nonpayment as required by the trust agreement.

4. *The bond must guarantee that the owner or operator will:*

   a. *fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or*

   b. *fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin final closure is issued by the administrative authority, or court of competent jurisdiction; or*

   c. *provide alternate financial assurance as specified in this Part and obtain the administrative authority's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the administrative authority of a notice of cancellation of the bond from the surety.*

5. *Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.*

6. *The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in LAC 33:V.3707.G.*

7. *Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the administrative authority.*

8. *Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator, and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.*

9. *The owner or operator may cancel the bond if the administrative authority has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this Part.*

C. *Surety Bond Guaranteeing Performance of Closure*

1. *An owner or operator may satisfy the requirements of this Section by obtaining a surety bond which conforms to the requirements of this Subsection and submitting the bond to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the bond to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in*

Circular 570 of the U.S. Department of the Treasury, and approved by the administrative authority.

2. *The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.C.*

3. *The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust must meet the requirements specified in Subsection A of this Section except that:*

   a. *an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the surety bond; and*

   b. *unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:*

      i. *payments into the trust fund as specified in LAC 33:V.3707.A;*

      ii. *updating of Schedule A of the trust agreement (for example, see LAC 33:V.Chapter 37) to show current closure cost estimates;*

      iii. *annual valuations as required by the trust agreement; and*

      iv. *notices of nonpayment as required by the trust agreement.*

4. *The bond must guarantee that the owner or operator will:*

   a. *perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or*

   b. *provide alternate financial assurance as specified in this Part, and obtain the administrative authority's written approval of the assurance provided, within 90 days after receipt of both the owner or operator, and the administrative authority of a notice of cancellation of the bond from the surety.*

5. *Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination by the administrative authority pursuant to R.S. 30:2025 that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure as guaranteed by the bond or will deposit the amount of the penal sum into the standby trust fund.*

6. *The penal sum of the bond must be in an amount at least equal to the current closure cost estimate.*

7. *Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Office of*

Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the administrative authority.

8. *Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.*

9. *The owner or operator may cancel the bond if the administrative authority has given prior written consent. The administrative authority will provide such written consent when:*

   a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

   b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.*

10. *The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.*

D. *Closure Letter of Credit*

1. *An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this Subsection and submitting the letter to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the letter of credit to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The letter of credit must be effective before the initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.*

2. *The wording of the letter of credit must be identical to the wording specified in LAC 33:V.3719.D.*

3. *An owner or operator who uses a letter of credit to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the administrative authority will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust fund must meet the requirements of the trust fund specified in LAC 33:V.3707.A, except that:*

   a. *an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the letter of credit; and*

b. unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:

i. payments into the trust fund as specified in LAC 33:V.3707.A;

ii. updating of Schedule A of the trust agreement (see LAC 33:V.3719.A) to show current closure cost estimates;

iii. annual valuations as required by the trust agreement; and

iv. notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA identification number, name, address, and the amount of funds assured for closure of the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the administrative authority by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the administrative authority have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in Subsection G of this Section.

7. Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the administrative authority.

8. Following a final administrative determination by the administrative authority pursuant to R.S. 30:2025 that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the administrative authority may draw on the letter of credit.

9. If the owner or operator does not establish alternate financial assurance as specified in this Part, and obtain written approval of such alternate assurance from the administrative authority within 90 days after receipt by both the owner or operator and the administrative authority of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the administrative authority will draw on the letter of credit. The administrative authority may delay the drawing if the issuing institution grants an

extension of the term of the credit. During the last 30 days of any such extension the administrative authority will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this Part and obtain written approval of such assurance from the administrative authority.

10. *The administrative authority will return the letter of credit to the issuing institution for termination when:*

    a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

    b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.*

E. *Closure Insurance*

1. *An owner or operator may satisfy the requirements of this Part by obtaining closure insurance which conforms to the requirements of this Paragraph and submitting a certificate of such insurance to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the certificate of insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or be eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and authorized to transact business in Louisiana.*

2. *The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.E.*

3. *The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in LAC 33:V.3707.G. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.*

4. *The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the administrative authority to such party or parties as the administrative authority specifies.*

5. *After beginning partial or final closure, an owner or operator, or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the administrative authority. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills*

for closure activities, the administrative authority will instruct the insurer to make reimbursements in such amounts as the administrative authority specifies in writing, if the administrative authority determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the administrative authority has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with LAC 33:V.3707.I, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the administrative authority does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

6. *The owner or operator must maintain the policy in full force and effect until the administrative authority consents to termination of the policy by the owner or operator as specified in LAC 33:V.3707.E.10. Failure to pay the premium, without substitution of alternate financial assurance as specified in this Part, will constitute a significant violation of these regulations, warranting such remedy as the administrative authority deems necessary. Such violation will be deemed to begin upon receipt by the administrative authority of a notice of future cancellation, termination, or failure to renew, due to nonpayment of the premium, rather than upon the date of expiration.*

7. *Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.*

8. *The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the administrative authority. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the administrative authority and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:*

   a. *the administrative authority deems the facility abandoned; or*

   b. *the permit is terminated or revoked, or a new permit is denied; or*

   c. *closure is ordered by the administrative authority or a U.S. District Court or other court of competent jurisdiction; or*

   d. *the owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or*

   e. *the premium due is paid.*

9. *Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate, and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the administrative authority.*

10. *The administrative authority will give written consent to the owner or operator that he may terminate the insurance policy when:*

   a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

   b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.*

F. *Financial Test and Corporate Guarantee for Closure*

1. *An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Section. To pass this test the owner or operator must meet the criteria of either of the following.*

   a. *The owner or operator must have:*

      i. *two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and*

      ii. *net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and*

      iii. *tangible net worth of at least $10 million; and*

      iv. *assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.*

   b. *The owner or operator must have:*

      i. *a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and*

      ii. *tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and*

      iii. *tangible net worth of at least $10 million; and*

iv. *assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.*

2. *The phrase "current closure and post-closure cost estimates" as used in Paragraph F.1 of this Section refers to the cost estimates required to be shown in Paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (see LAC 33:V.3719.F). The phrase "current plugging and abandonment cost estimates" used in Paragraph F.1 of this Section refers to the cost estimates required to be shown in Paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (40 CFR 144.70.f)*

3. *To demonstrate that he meets this test, the owner or operator must submit the following items to the Office of Management and Finance, Financial Services Division:*

   a. *a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.F; and*

   b. *a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and*

   c. *a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:*

      i. *he has compared the data with the letter from the chief financial officer specified as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and*

      ii. *in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.*

4. *An owner or operator of a new facility must submit the items specified in LAC 33:V.3707.F.3 to the Office of Management and Finance, Financial Services Division at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.*

5. *After the initial submission of items specified in LAC 33:V.3707.F.3, the owner or operator must send updated information to the Office of Management and Finance, Financial Services Division within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3707.F.3.*

6. *If the owner or operator no longer meets the requirements of LAC 33:V.3707.F.1, he must send notice to the Office of Management and Finance, Financial Services Division of intent to establish alternate financial assurance as specified in this Part. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.*

7. *The administrative authority may, based on a reasonable belief that the owner or operator may no longer meet the requirements of LAC 33:V.3707.F.1, require reports of financial condition at any time from the owner or operator in addition to those specified in LAC 33:V.3707.F.3. If the administrative authority finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of LAC 33:V.3707.F.1, the owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of such a finding.*

8. *The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3707.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of the disallowance.*

9. *The owner or operator is no longer required to submit the items specified in LAC 33:V.3707.F.3 when:*

   a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

   b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.*

10. *An owner or operator may meet the requirements of this Section by obtaining a written guarantee. The guarantor must be the direct or higher tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements of LAC 33:V.3707.F.1-8 for owners or operators, and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719.H. A certified copy of the guarantee must accompany the items sent to the administrative authority as specified in LAC 33:V.3707.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide that:*

    a. *If the owner or operator fails to perform final closure of a facility covered by the guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a*

trust fund as specified in LAC 33:V.3707.A in the name of the owner or operator.

b. *The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator, and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.*

c. *If the owner or operator fails to provide alternate financial assurance as specified in this Section and obtain the written approval of such alternate assurance from the administrative authority within 90 days after receipt by the owner or operator and the administrative authority of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.*

G. *Use of Multiple Financial Mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in Subsections A, B, D, and E of this Section, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanism. A single trust fund may be established for two or more mechanisms. The administrative authority may use any or all of the mechanisms to provide for closure of the facility.*

H. *Use of a Financial Mechanism for Multiple Facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the administrative authority must include a list showing, for each facility, the EPA identification number, name, address, and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing the funds available through the mechanism for closure of any of the facilities covered by the mechanism, the administrative authority may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.*

I. *Release of the Owner or Operator from the Requirements of this Section. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, and for facilities subject to LAC 33:V.3525, after receiving the certification required under LAC 33:V.3525.B.2, the administrative authority will notify the owner or operator in writing that he is no*

longer required by this Section to maintain financial assurance for final closure of the particular facility, unless the administrative authority has reason to believe that final closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525. The administrative authority shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525.

To comply with the requirements of this section, Clean Harbors Colfax, LLC has established financial assurance for closure by obtaining an insurance policy in accordance with the requirements of LAC 33:V.3707.E. A copy of the insurance certificate and associated documentation is included in Appendix N.

Subchapter B. Post-Closure Requirements

3709. Cost Estimate for Post-Closure Care

A. The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under LAC 33:V.2315 and 2911 to prepare a contingent closure and post-closure plan, must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in LAC 33:V.3519, 3527, 2315, 2521, 2719, 2911, and 3207.

1. The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in LAC 33:V.3703.)

2. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under LAC 33:V.3523.

B. During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with LAC 33:V.3711. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the administrative authority as specified in LAC 33:V.3711.F.5. The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in LAC 33:V.3709.B.1 and B.2. The inflation factor is

the result of dividing the latest published annual deflator by the deflator for the previous year.

1. *The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.*
2. *Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.*

C. *During the active life of the facility, the owner or operator must revise the post-closure cost estimate within 30 days after the administrative authority has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in LAC 33:V.3709.B.*

D. *The owner or operator must keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with LAC 33:V.3709.A and C and, when this estimate has been adjusted, the latest adjusted post-closure cost estimate.*

Post-closure care and monitoring are not required for this facility as discussed in Section 3521 of this permit application. LAC 33:V.3709 does not apply, nor does LAC 33:V.3711 which discusses the methods of financial assurance for post closure care.

3711. Financial Assurance for Post-Closure Care

The owner or operator of a hazardous waste management unit subject to the requirements of LAC 33:V.3709 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. Under this Section, the owner or operator must choose from the options as specified in Subsections A-F of this Section, which choice the administrative authority must find acceptable based on the application and the circumstances.

A. *Post-Closure Trust Fund*

1. *An owner or operator may satisfy the requirements of this Part by establishing a post-closure trust fund which conforms to the requirements of this Paragraph and submitting an originally signed duplicate of the trust agreement to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.*
2. *The wording of the trust agreement must be identical to the wording specified in LAC 33:V.3719.A.1, and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see LAC 33:V.3719.A.2). Schedule*

A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

3. *Payments into the trust fund must be made annually by the owner or operator over the term of the initial permit, or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows.*

   a. *For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the administrative authority before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in LAC 33:V.3711.G, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:*

$$Next\ Payment = \frac{CE - CV}{Y}$$

where:

CE = current post-closure cost estimate,

CV = current value of the trust fund, and

Y = number of years remaining in the pay-in period.

   b. *If an owner or operator has previously established a trust fund as specified in LAC 33:V.4407.A, and the value of that trust fund is less than the current post-closure cost estimate when a permit under these regulations is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the fund must be paid in over the pay-in period as defined in LAC 33:V.3711.A.3. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made. The amount of each payment must be determined by this formula:*

$$Next\ Payment = \frac{CE - CV}{Y}$$

where:

CE= current post-closure cost estimate,

CV = current value of the trust fund, and

Y = the number of years remaining in the pay-in period.

4. *The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in LAC 33:V.3711.A.3.*

5. *If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this Section or in LAC 33:V.4407, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and if annual payments were made according to specifications of this Subsection and LAC 33:V.4407, as applicable.*

6. *After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that the fund at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this Part to cover the difference.*

7. *During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Office of Management and Finance, Financial Services Division for release of the amount in excess of the current post-closure cost estimate.*

8. *If an owner or operator substitutes other financial assurance as specified in this Part for all or part of the trust fund, he may submit a written request to the Office of Management and Finance, Financial Services Division for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.*

9. *Within 60 days after receiving a request from the owner or operator for release of funds as specified in LAC 33:V.3711.A.7 or 8, the administrative authority will instruct the trustee to release to the owner or operator such funds as the administrative authority specifies in writing.*

10. *During the period of post-closure care, the administrative authority may approve a release of funds if the owner or operator demonstrates to the administrative authority that the value of the trust fund exceeds the remaining cost of post-closure care.*

11. *An owner or operator, or any other person authorized to perform post-closure care, may request reimbursement for the post-closure expenditures by submitting itemized bills to the administrative authority. Within 60 days after receiving bills for post-closure activities, the administrative authority will instruct the trustee to make reimbursements in those amounts as the administrative authority specifies in writing, if the administrative authority determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise*

justified. If the administrative authority does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

12. The administrative authority will agree to termination of the trust when:

a. an owner or operator substitutes alternate financial assurance as specified in this Part; or

b. the administrative authority releases the owner or operator from the requirements of this Section in accordance with Subsection I of this Section.

B. Surety Bond Guaranteeing Payment into a Post-closure Trust Fund

1. An owner or operator may satisfy the requirements of this Section by obtaining a surety bond which conforms to the requirements of this Subsection and submitting the bond to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the bond to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury, and approved by the administrative authority.

2. The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.B.

3. The owner or operator who uses a surety bond to satisfy the requirements of this Part must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust fund must meet the requirements specified in LAC 33:V.3711.A except that:

a. an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the surety bond; and

b. until the standby trust fund is funded pursuant to the requirements of this Part, the following are not required by these regulations:

i. payments into the trust fund as specified in LAC 33:V.3711.A.3;

ii. updating of Schedule A of the trust agreement to show current post-closure cost estimates;

iii. annual valuations as required by the trust agreement; and

iv. notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

a. fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

b. fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin final closure issued by the administrative authority

becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

c. provide alternate financial assurance as specified in this Part, and obtain the administrative authority's written approval of the assurance provided within 90 days after receipt by both the owner or operator and the administrative authority of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in LAC 33:V.3711.G.

7. Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the administrative authority.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator, and to the Office of Management and Finance, Financial Services Division. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the administrative authority has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this Part.

C. Surety Bond Guaranteeing Performance of Post-Closure Care

1. An owner or operator of a facility which has been issued a standard permit may satisfy the requirements of this Section by obtaining a surety bond which conforms to the requirements of this Subsection and by submitting the bond to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the bond to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury, and approved by the administrative authority.

2. The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.C.

3. *The owner or operator who uses a surety bond to satisfy the requirements of this Part must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust fund must meet the requirements specified in LAC 33:V.3711.A except that:*

   a. *an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the surety bond; and*

   b. *unless the standby trust fund is funded pursuant to the requirements of this Part, the following are not required by these regulations:*

      i. *payments into the trust fund as specified in LAC 33:V.3711.A.3;*

      ii. *updating of Schedule A of the trust agreement to show current post-closure cost estimates;*

      iii. *annual valuations as required by the trust agreement; and*

      iv. *notices of nonpayment as required by the trust agreement.*

4. *The bond must guarantee that the owner or operator will:*

   a. *perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or*

   b. *provide alternate financial assurance as specified in this Part, and obtain the administrative authority's written approval of the assurance provided, within 90 days of receipt by both the owner or operator, and the administrative authority of a notice of cancellation of the bond from the surety.*

5. *Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination by the administrative authority pursuant to R.S. 30:2025 that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with the post-closure plan and other permit requirements, or will deposit the amount of the penal sum into the standby trust fund.*

6. *The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.*

7. *Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current*

post-closure cost estimate following written approval by the administrative authority.

8. *During the period of post-closure care, the administrative authority may approve a decrease in the penal sum if the owner or operator demonstrates to the administrative authority that the amount exceeds the remaining cost of post-closure care.*

9. *Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator, and to the Office of Management and Finance, Financial Services Division. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.*

10. *The owner or operator may cancel the bond if the administrative authority has given prior written consent. The administrative authority will provide such written consent when:*

    a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

    b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.*

11. *The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.*

D. *Post-Closure Letter of Credit*

1. *An owner or operator may satisfy the requirements of this Part by obtaining an irrevocable standby letter of credit which conforms to the requirements of this Paragraph and by submitting the letter to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the letter of credit to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.*

2. *The wording of the letter of credit must be identical to the wording specified in LAC 33:V.3719.D.*

3. *An owner or operator who uses a letter of credit to satisfy the requirements of this Part must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the administrative authority will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the administrative authority. This standby trust*

fund must meet the requirements of the trust fund specified in LAC 33:V.3711.A, except that:

a. *an originally signed duplicate of the trust agreement must be submitted to the administrative authority with the letter of credit; and*

b. *unless the standby trust fund is funded pursuant to the requirements of this Part, the following are not required by these regulations:*

i. *payments into the trust fund as specified in LAC 33:V.3711.A.3;*

ii. *updating of Schedule A of the trust agreement to show current post-closure cost estimates;*

iii. *annual valuations as required by the trust agreement; and*

iv. *notices of nonpayment as required by the trust agreement.*

4. *The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA identification number, name, address, and the amount of funds assured for post-closure care of the facility by the letter of credit.*

5. *The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator, and the administrative authority by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator, and the administrative authority have received the notice, as evidenced by the return receipts.*

6. *The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in LAC 33:V.3711.G.*

7. *Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the administrative authority.*

8. *During the period of post-closure care, the administrative authority may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the administrative authority that the amount exceeds the remaining cost of post-closure care.*

9. *Following a final administrative determination by the administrative authority pursuant to R.S. 30:2025 that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other permit requirements, the administrative authority may draw on the letter of credit.*

10. *If the owner or operator does not establish alternate financial assurance as specified in this Part and obtain written approval of such alternate assurance from the administrative authority within 90 days after receipt by both the owner or operator and the Office of Management and Finance, Financial Services Division of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the administrative authority will draw on the letter of credit. The administrative authority may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the administrative authority will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this Part and obtain written approval of such assurance from the administrative authority.*

11. *The administrative authority will return the letter of credit to the issuing institution for termination when:*

    a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

    b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.*

E. *Post-Closure Insurance*

1. *An owner or operator may satisfy the requirements of this Part by obtaining post-closure insurance which conforms to the requirements of this Paragraph and submitting a certificate of such insurance to the Office of Management and Finance, Financial Services Division. An owner or operator of a new facility must submit the certificate of insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or be eligible to provide insurance as an excess or surplus lines insurer in one or more states, and authorized to transact business in Louisiana.*

2. *The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.E.*

3. *The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in LAC 33:V.3711.G. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.*

4. *The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins.*

The policy must also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the administrative authority, to such party or parties as the administrative authority specifies.

5. *An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the administrative authority. Within 60 days after receiving bills for post-closure activities, the administrative authority will instruct the insurer to make reimbursements in those amounts as the administrative authority specifies in writing, if the administrative authority determines that the post-closure expenditures are in accordance with the post-closure plan or otherwise justified. If the administrative authority does not instruct the insurer to make such reimbursements he will provide the owner or operator with a detailed written statement of reasons.*

6. *The owner or operator must maintain the policy in full force and effect until the administrative authority consents to termination of the policy by the owner or operator as specified in LAC 33:V.3711.E.11. Failure to pay the premium, without substitution of alternate financial assurance as specified in this Part, will constitute a significant violation of these regulations, warranting such remedy as the administrative authority deems necessary. Such violation will be deemed to begin upon receipt by the administrative authority of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.*

7. *Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.*

8. *The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Office of Management and Finance, Financial Services Division. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the administrative authority and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:*

   a. *the administrative authority deems the facility abandoned; or*

   b. *the permit is terminated or revoked or a new permit is denied; or*

   c. *closure is ordered by the administrative authority or a U.S. District Court or other court that can exercise jurisdiction; or*

d. the owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

e. the premium due is paid.

9. Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Part to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the administrative authority.

10. Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rates or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26 week Treasury securities.

11. The administrative authority will give written consent to the owner or operator that he may terminate the insurance policy when:

a. an owner or operator substitutes alternate financial assurance as specified in this Part; or

b. the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.

F. Financial Test and Corporate Guarantee for Post-Closure Care

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either of the following.

a. The owner or operator must have:

i. two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

ii. net working capital and tangible net worth each at least six times the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

iii. tangible net worth of at least $10 million; and

iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

b. The owner or operator must have:

i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

ii. tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

iii. tangible net worth of at least $10 million; and

iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

2. The phrase current closure and post-closure cost estimates as used in LAC 33:V.3711.F.1 refers to the cost estimates required to be shown in Paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (see LAC 33:V.3719.F). The phrase current plugging and abandonment cost estimates used in LAC 33:V.3711.F.1 refers to the cost estimates required to be shown in Paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (40 CFR 144.70.f).

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Office of Management and Finance, Financial Services Division:

a. a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.F; and

b. a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

c. a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

i. he has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii. in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. An owner or operator of a new facility must submit the items specified in LAC 33:V.3711.F.3 to the Office of Management and Finance, Financial Services Division at least 60 days before the date on which hazardous waste is first received for disposal.

5. *After the initial submission of items specified in LAC 33:V.3711.F.3, the owner or operator must send updated information to the Office of Management and Finance, Financial Services Division within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3711.F.3.*

6. *If the owner or operator no longer meets the requirements of LAC 33:V.3711.F.1 of this Part, he must send notice to the Office of Management and Finance, Financial Services Division of intent to establish alternate financial assurance as specified in this Part. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.*

7. *The administrative authority may, based on a reasonable belief that the owner or operator may no longer meet the requirements of LAC 33:V.3711.F.1, require reports of financial condition at any time from the owner or operator in addition to those specified in LAC 33:V.3711.F.3. If the administrative authority finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of LAC 33:V.3711.F.1, the owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of such a finding.*

8. *The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3711.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances, and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of the disallowance.*

9. *During the period of post-closure care, the administrative authority may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the administrative authority that the amount of the cost estimate exceeds the remaining cost of post-closure care.*

10. *The owner or operator is no longer required to submit the items specified in LAC 33:V.3711.F.3 when:*

    a. *an owner or operator substitutes alternate financial assurance as specified in this Part; or*

    b. *the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.*

11. An owner or operator may meet the requirements of this Section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators of LAC 33:V.3711.F.1-F.9 and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719.H. A certified copy of the guarantee must accompany the items sent to the administrative authority specified in LAC 33:V.3711.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide that:

a. if the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in LAC 33:V.3711.A in the name of the owner or operator;

b. the corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts;

c. if the owner or operator fails to provide alternate financial assurance as specified in this Part and obtain the written approval of such alternate assurance from the administrative authority within 90 days after receipt by both the owner or operator and the administrative authority of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

G. Use of Multiple Financial Mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in Subsections A, B, D, and E of this Section, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The

administrative authority may use any or all of the mechanisms to provide for post-closure care of the facility.

H. Use of a Financial Mechanism for Multiple Facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the administrative authority must include a list showing, for each facility, the EPA identification number, name, address, and the amount of funds for post-closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the administrative authority may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

I. Release of the Owner or Operator from the Requirements of this Part. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the administrative authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the administrative authority has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The administrative authority shall provide the owner or operator with a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

As mentioned previously, this section is not applicable since Post-Closure monitoring is not required for the facility. The facility does not meet the definition of a facility that requires Post-Closure monitoring as described in LAC 33:V.3709.

Subchapter C. Common Closure and Post-Closure Requirements

3713. Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care

A. An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both LAC 33:V.3707 and 3711. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism has been established and maintained for financial assurance of closure and post-closure care.

Clean Harbors Colfax, LLC has established financial assurance for closure by obtaining an insurance policy in accordance with the requirements of LAC 33:V.3707.E. A financial mechanism does not need to be established for post-closure

because post-closure care and monitoring is not required for this facility. A copy of the insurance documentation is included in Appendix N.

Subchapter D. Insurance Requirements

3715. Liability Requirements

A. Coverage for Sudden Accidental Occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence, with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in LAC 33:V.3715.A.1, 2, 3, 4, 5, or 6. For any facility that treats, stores, or disposes by land treatment (i.e., surface impoundment, waste pile, landfarm, or landfill) any acute hazardous waste (see Table 3 of LAC 33:V.Chapter 49), or any toxic waste listed because of toxicity or reactivity (see Table 4 of LAC 33:V.Chapter 49) the liability coverage must be at least $5 million per occurrence, with an annual aggregate of at least $5 million exclusive of legal defense costs.

A copy of the insurance policy for the treatment facility is presented in Appendix N. The insurance policy provides liability coverage for sudden accidental occurrences resulting in property damage or bodily injury. The liability coverage amounts are provided on the insurance certificate. This coverage will be maintained over the permitted life of the facility.

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this Paragraph.

a. Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement must be identical to the wording specified in LAC 33:V.3719.I. The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.J. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Office of Management and Finance, Financial Services Division. If requested by the administrative authority, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the certificate of liability insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

The certificate of liability insurance is presented in Appendix N. The wording of the certificate is identical to the wording specified in LAC 33:V.3719.J.

b. Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and authorized to transact business in Louisiana.

The insurance policy is issued by a firm that is licensed to transact the business of insurance in Louisiana.

2. An owner or operator may meet the requirements of this Section by passing a financial test or using the corporate guarantee for liability coverage as specified in Subsections F and G of this Section.

The facility has not opted to meet the requirements of this Section by passing a financial test or using the corporate guarantee for liability coverage as specified in Subsections F and G of this section. An insurance policy has been provided and is included in Appendix N.

3. An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage as specified in LAC 33:V.3715.H.

4. An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage as specified in LAC 33:V.3715.I.

5. An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage as specified in LAC 33:V.3715.J.

6. An owner or operator may demonstrate the required liability coverage through use of combinations of financial test, insurance, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this Paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurances as "excess" coverage.

7. An owner or operator shall notify the Office of Management and Finance, Financial Services Division in writing within 30 days whenever:

a. *a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in LAC 33:V.3715.A.1-6; or*

b. *a Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under LAC 33:V.3715.A.1-6; or*

c. *a final court order establishing a judgement for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under LAC 33:V.3715.A.1-6.*

As stated above, the facility has provided an insurance policy for this coverage. In the event that, in the future, the facility elects to change the mechanism for coverage, the proper notification and request for approval (as applicable) will be provided to the Department.

B. *Coverage for Non-sudden Accidental Occurrences. An owner or operator of a surface impoundment, landfill, land treatment facility, or miscellaneous disposal unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by non-sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this Section may combine the required per-occurrence coverage levels for sudden and non-sudden accidental occurrence into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and non-sudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and non-sudden accidental occurrences must maintain liability coverage in the amount of at least $5 million per occurrence and $10 million annual aggregate. This liability coverage may be demonstrated as specified in LAC 33:V.3715.B.1, 2, 3, 4, 5, or 6.*

A copy of the insurance policy for the treatment facility is presented in Appendix N. The liability coverage provided by the insurance policy for non-sudden accidental occurrences resulting in property damage or bodily injury is noted on the certificates of insurance. This coverage will be maintained over the permitted life of the facility.

1. *An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this Paragraph.*

The liability coverage consists of the insurance policy presented in Appendix N.

a. *Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement must be identical to the wording specified in LAC 33:V.3719.I. The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.J. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the administrative authority. If requested by the Office of Management and Finance, Financial Services Division, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the certificate of liability insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.*

The certificate of liability insurance is presented in Appendix N. The wording of the certificate is identical to the wording specified in LAC 33:V.3719.I.

b. *Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in one or more states and authorized to transact business in Louisiana.*

The insurance policy is issued by a firm that is licensed to transact the business of insurance in Louisiana.

2. *An owner or operator may meet the requirements of this Section by passing a financial test or using the guarantee for liability coverage as specified in LAC 33:V.3715.F and G.*
3. *An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage as specified in LAC 33:V.3715.H.*
4. *An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage as specified in LAC 33:V.3715.I.*

5. *An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage as specified in LAC 33:V.3715.J.*

6. *An owner or operator may demonstrate the required liability coverage through use of combinations of financial test, insurance, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this Paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.*

Clean Harbors Colfax, LLC has elected to demonstrate liability coverage by obtaining a certificate of insurance.

7. *An owner or operator shall notify the Office of Management and Finance, Financial Services Division in writing within 30 days whenever:*

   a. *a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in LAC 33:V.3715.B.1-6; or*

   b. *a Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under LAC 33:V.3715.B.1-6; or*

   c. *a final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under LAC 33:V.3715.B.1-6.*

Clean Harbors Colfax, LLC will notify the administrative authority in writing within 30 days if a claim results in a reduction of financial assurance, a certification of valid claim is entered, or a final court order establishing judgment is issued.

C. *Request for Variance. If an owner or operator can demonstrate to the satisfaction of the administrative authority that the levels of financial responsibility required by*

Subsections A and B of this Section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the administrative authority. The request for a variance must be submitted to the administrative authority as part of the application under LAC 33:V.Chapter 5 for a facility that does not have a permit, or pursuant to the procedures for permit modification under LAC 33:V.Chapter 3 for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the administrative authority's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The administrative authority may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the administrative authority to determine a level of financial responsibility other than that required by Subsections A and B of this Section. Any request for a variance for a permitted facility will be treated as a request for a permit modification under LAC 33:V.321.

Clean Harbors Colfax, LLC does not request a variance from the requirements of LAC 33:V.3715.A and B at this time.

D. Adjustments by the Administrative Authority. If the administrative authority determines that the levels of financial responsibility required by LAC 33:V.3715.A or B are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the administrative authority may adjust the level of financial responsibility required by LAC 33:V.3715.A and B as may be necessary to protect human health and the environment. This adjusted level will be based on the administrative authority's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the administrative authority determines that there is a significant risk to human health and the environment from non-sudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with LAC 33:V.3715.B. An owner or operator must furnish to the Office of Management and Finance, Financial Services Division, within a reasonable time, any information which the administrative authority requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under LAC 33:V.321.

Clean Harbors Colfax, LLC understands that the administrative authority may adjust the level of financial responsibility from the requirements of LAC 33:V.3715.A or B if it is determined that the amounts are inconsistent with the

degree and duration of risk associated with the operation of the facility to human health and the environment.

The facility understands that any adjustment in the level or type of coverage for the facility will be treated as a permit modification in accordance with LAC 33:V.321.

E. Period of Coverage. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain liability coverage for that facility, unless the administrative authority has reason to believe that closure has not been in accordance with the approved closure plan.

Clean Harbors Colfax, LLC agrees to maintain liability coverage until the administrative authority provides a written notification approving final closure of the facility and terminating the requirements for liability coverage. The facility understands that the administrative authority has a 60 day period from the date closure certifications are received from the applicant and the independent registered engineer to determine if closure has been properly completed and liability coverage is no longer necessary.

F. Financial Test for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either LAC 33:V.3715.F.1.a or b below.

a. The owner or operator must have:

i. net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by the test; and

ii. tangible net worth of at least $10 million; and

iii. assets located in the United States amounting to either at least 90 percent of his total assets or at least six times the amount of liability coverage to be demonstrated by this test.

b. The owner or operator must have:

i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

ii. tangible net worth of at least $10 million; and

iii. tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

iv. assets located in the United States amounting to either at least 90 percent of total assets or at least six times the amount of liability coverage to be demonstrated by this test.

2. *The phrase amount of liability coverage as used in LAC 33:V.3715.F.1 refers to the annual aggregate amounts for which coverage is required under LAC 33:V.3715.A and B.*

3. *To demonstrate that he meets this test, the owner or operator must submit the following three items to the Office of Management and Finance, Financial Services Division:*

   a. *a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.G. If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by LAC 33:V.3707.F, 3711.F, 4403.E, and 4407.E, and liability coverage, he must submit the letter specified in LAC 33:V.3719.G to cover both forms of financial responsibility; a separate letter as specified in LAC 33:V.3719.F is not required;*

   b. *a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year;*

   c. *a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:*

      i. *he has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and*

      ii. *in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.*

4. *An owner or operator of a new facility must submit the items specified in LAC 33:V.3715.F.3 to the Office of Management and Finance, Financial Services Division at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.*

5. *After the initial submission of items specified in LAC 33:V.3715.F.3, the owner or operator must send updated information to the administrative authority within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3715.F.3.*

6. *If the owner or operator no longer meets the requirements of LAC 33:V.3715.F.1, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this Section. Evidence of liability coverage must be submitted to the Office of Management and Finance, Financial Services Division within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.*

7. *The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3715.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this Part within 30 days after notification of disallowance.*

8. *The corporate guarantee authorized for use to demonstrate financial assurance for closure and/or post-closure may not be used to demonstrate financial assurance for liability coverage.*

G. *Guarantee for Liability Coverage. Subject to LAC 33:V.3715.G.2, an owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in LAC 33:V.3715.F.1-7. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719. A certified copy of the guarantee must accompany the items sent to the administrative authority as specified in LAC 33:V.3715.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.*

1. *If the owner or operator fails to satisfy a judgement based on a determination of liability for bodily injury or property damage to third parties caused by sudden or non-sudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.*

2. *In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this Section only if the attorney general or insurance commissioner of the state in which the guarantor is incorporated and the attorney general or insurance commissioner of Louisiana have submitted written statements to the department that a guarantee executed as described in this Section and LAC 33:V.3719.H.2 is a legally valid and enforceable obligation in that state.*

3. *In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this Section only if the non-U.S.*

corporation has identified a registered agent for service of process in Louisiana and in the state in which it has its principal place of business, and the attorney general or insurance commissioner of Louisiana and the state in which the guarantor corporation has its principal place of business have submitted written statements to the department that a corporate guarantee executed as described in this Section and LAC 33:V.3719.H.2 is a legally valid and enforceable obligation in that state.

H. Letter of Credit for Liability Coverage

1. *An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this Subsection and submitting a copy of the letter of credit to the Office of Management and Finance, Financial Services Division.*

2. *The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.*

3. *The wording of the letter of credit must be identical to the wording specified in LAC 33:V.3719.K.*

4. *An owner or operator who uses a letter of credit to satisfy the requirements of this Section may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.*

5. *The wording of the standby trust fund must be identical to the wording specified in LAC 33:V.3719.N.*

I. Surety Bond for Liability Coverage

1. *An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this Subsection and submitting a copy of the bond to the Office of Management and Finance, Financial Services Division.*

2. *The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.*

3. *The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.L.*

4. *A surety bond may be used to satisfy the requirements of this Section only if the attorney general or insurance commissioner of the state in which the surety is incorporated and the attorney general or insurance commissioner of Louisiana have submitted a written statement to EPA that a surety bond executed as described in this Section and LAC 33:V.3719.L is a legally valid and enforceable obligation in that state.*

J. Trust Fund for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by establishing a trust fund that conforms to the requirements of this Paragraph and submitting an originally signed duplicate of the trust agreement to the Office of Management and Finance, Financial Services Division.

2. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

3. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this Section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this Section to cover the difference. For purposes of this Paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or non-sudden occurrences required to be provided by the owner or operator by this Section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

4. The wording of the trust fund must be identical to the wording specified in LAC 33:V.3719.M.

Clean Harbors Colfax, LLC has elected at this time to obtain certificates of insurance to satisfy the requirements of LAC 33:V.3715.A and B.

K. Notwithstanding any other provision of LAC 33:V.Subpart 1, an owner or operator using liability insurance to satisfy the requirements of this Section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more states.

Since October 16, 1982 has passed, this section does not apply.

Subchapter E. Incapacity Regulations

3717. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

A. An owner or operator must notify the Office of Management and Finance, Financial Services Division by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner

or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in LAC 33:V.3707.F and 3711.F must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (see LAC 33:V.3719.H).

Clean Harbors Colfax, LLC will notify the administrative authority by certified mail if it is named debtor in voluntary or involuntary proceeding under Title 11 of the U.S. Code. The written notification will be submitted within ten days after the proceeding has commenced.

B. An owner or operator who fulfills the requirements of LAC 33:V.3707, 3711 or 3715 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

Clean Harbors Colfax, LLC understands that it must establish other financial assurance in the event of bankruptcy of the insurance company or suspension or revocation of its license to operate. In such events, the facility will submit proof of new financial assurance within 60 days of the receiving notification that the insurance company can no longer provide adequate coverage.

Subchapter F. Financial and Insurance Instruments

3719. Wording of the Instruments

A. A trust agreement for a trust fund as specified in LAC 33:V.3707.A or 3711.A or 4403.A or 4407.A must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

1.

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____ " or "a national bank" or "a state bank"], the "Trustee."

WHEREAS, the Department of Environmental Quality of the State of Louisiana, an agency of the State of Louisiana, has established certain regulations applicable to the grantor, requiring that an owner or operator of a hazardous waste management facility

shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility;

WHEREAS, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facility identified herein;

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions

As used in this agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "Secretary" means the Secretary, Louisiana Department of Environmental Quality and any successor agency.

(d) The term "administrative authority" means the Secretary, or a person designated by him or her to act therefor.

Section 2. Identification of Facilities

and Cost Estimates

This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Louisiana Department of Environmental Quality. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. [Note: Standby Trust Agreements need not be funded at the time of execution. In the case of Standby Trust Agreements, Schedule B should be blank but for a statement that the Agreement is not presently funded, but shall be funded by the financial assurance document used by the Grantor in accordance with the terms of that document.] Such property and any other property subsequently transferred to the Trustee is referred to as the Fund. together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the administrative authority.

Section 4. Payment for Closure and

Post-Closure Care

The Trustee shall make payments from the Fund as the administrative authority shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facility covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the administrative authority from the Fund for closure and post-closure expenditures in such amounts as the administrative authority shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the administrative authority specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this part. In investing, reinvesting, exchanging, selling, and managing the Fund, the trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims, except that:

A. securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

B. the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

C. the Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

A. to transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

B. to purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

A. to sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

B. to make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

C. to register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

D. to deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

E. to compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation

The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the administrative authority a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the administrative authority shall constitute a conclusively binding assent by the Grantor, barring the Grantor from

asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the administrative authority, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Part shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests and instructions. All orders, requests, and instructions by the administrative authority to the Trustee shall be in writing, signed by the administrative authority, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or administrative authority hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or administrative authority, except as provided for herein.

Section 15. Notice of Nonpayment

The Trustee shall notify the Grantor and the administrative authority, by certified mail, within ten days following the expiration of the thirty-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that

period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist.

Section 17. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to Grantor.

Section 18. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the administrative authority issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the State of Louisiana.

Section 20. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in LAC 33:V.3719.A.1 as such regulations were constituted on the date first above written.

WITNESSES: GRANTOR:

By:

Its:_____

(SEAL)

TRUSTEE:

By:_____

Its:_____

(SEAL)

THUS DONE AND PASSED in my office in _____, on the _____ day of _____, 20__, in the presence of _____ and _____, competent witnesses, who hereunto sign their names with the said appearers and me, Notary, after reading the whole.

NOTARY PUBLIC

2. The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in LAC 33:V.3707.A.2 or 4403.A.2 or 4407.A.2.

STATE OF LOUISIANA

PARISH OF _____

BE IT KNOWN, that on this _____ day of _____, 20__, before me, the undersigned Notary Public, duly commissioned and qualified within the State and Parish aforesaid, and in the presence of the witnesses hereinafter named and undersigned, personally came and appeared _____, to me well known, who declared and acknowledged that he had signed and executed the foregoing instrument as his act and deed, and as the act and deed of the a corporation, for the consideration, uses and purposes and on terms and conditions therein set forth.

And the said appearer, being by me first duly sworn, did depose and say that he is the of said corporation and that he signed and executed said instrument in his said capacity, and under authority of the Board of Directors of said corporation.

Thus done and passed in the State and Parish aforesaid, on the day and date first hereinabove written, and in the presence of _____ and _____, competent witnesses, who have hereunto subscribed their names as such, together with said appearer and me, said authority, after due reading of the whole.

WITNESSES:

_____ _____

_____ _____ *NOTARY PUBLIC*

B. Payment Bond. A surety bond guaranteeing payment into a trust fund, as specified in LAC 33:V.3707.B or 3711.B or 4403.B or 4407.B, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

FINANCIAL GUARANTEE BOND

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]: _____

Total penal sum of bond: $_____

Surety's bond number: _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Louisiana Department of Environmental Quality in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, said Principal is required, under the Resource Conservation and Recovery Act (RCRA) as amended and the Louisiana Environmental Quality Act, R.S. 30:2001 et seq., to have a permit in order to own or operate the hazardous waste management facility(ies) identified above; and

WHEREAS, the Principal is required by law to provide financial assurance for closure or closure and post-closure care, as a condition of the permit or interim status; and

WHEREAS, said Principal shall establish a standby trust fund as is required by LAC 33:V.Chapter 37 when a surety bond is used to provide such financial assurance;

NOW THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of the facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

OR, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin final closure is issued by the Secretary, or a court of competent jurisdiction,

OR, if the Principal shall provide alternate financial assurance as specified in LAC 33:V.Chapter 37, and obtain written approval from the administrative authority of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the administrative authority from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the administrative authority that the Principal has failed to perform as guaranteed by this bond, the

Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the administrative authority.

The Surety(ies) hereby waives notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations, and agrees that no such amendment shall in any way alleviate its obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of the penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the administrative authority, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of notice of cancellation by the Principal and the administrative authority, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies) and to the administrative authority, provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the administrative authority.

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly in accordance with LAC 33:V.Chapter 37, and the conditions of the Hazardous Waste Facility permit so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase or decrease without the written permission of the administrative authority.

The Principal and Surety(ies) hereby agree that no portion of the penal sum may be expended without prior written approval of the administrative authority.

IN WITNESS WHEREOF, the Principal and the Surety have executed this FINANCIAL GUARANTEE BOND and have affixed their seals on the date set forth above.

Those persons whose signatures appear below hereby certify that they are authorized to execute this FINANCIAL GUARANTEE BOND on behalf of the Principal and Surety(ies), that each Surety hereto is authorized to do business in the State of Louisiana, and that the wording of this surety bond is identical to the wording specified in LAC 33:V.3719.B as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETIES

[Name and address]

State of incorporation: _____

Liability Limit: _____

[Signature(s)]

[Name(s) and title(s)]

[Corporate Seal]

[This information must be provided for each co-surety]

Bond Premium: $_____

C. Performance Bond. A surety bond guaranteeing performance of closure and/or post-closure care, as specified in LAC 33:V.3707.C or 3711.C must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

PERFORMANCE BOND

Date bond executed: _____

Effective date: _____

Principal: [Legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): [Name(s) and business address(es)] _____

LHW/EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure separately]: _____

Total penal sum of bond: $ _____

Surety's bond number _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Louisiana Department of Environmental Quality in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA) and the Louisiana Environmental Quality Act, R.S. 30:2001, et seq., to have a permit in order to own or operate the hazardous waste management facility(ies) identified above; and

WHEREAS, the Principal is required by law to provide financial assurance for closure and post-closure care, as a condition of the permit; and

WHEREAS, said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of the facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended;

AND, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

OR, if the Principal shall provide alternate financial assurance as specified in LAC 33:V.Chapter 37, and obtain the administrative authority's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and administrative authority, then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described hereinabove.

Upon notification by the administrative authority that the Principal has been found in violation of the closure requirements of LAC 33:V.Chapter 37 or of its permit, for the facility for which this bond guarantees performances of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements, or place the closure amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

Upon notification by the administrative authority that the Principal has been found in violation of the post-closure requirements of the Hazardous Waste Regulations or of its permit for the facility for which this bond guarantees performance of post-closure, the surety(ies) shall either perform post-closure in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

Upon notification by the administrative authority that the Principal has failed to provide alternate financial assurance as specified in LAC 33:V.Chapter 37, and obtain written approval of such assurance from the administrative authority during the 90 days following receipt by both the Principal and the administrative authority of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility into the standby fund as directed by the administrative authority.

The Surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations, and agree(s) that no such amendment shall in any way alleviate its obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment on succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of the penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the administrative authority, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of notice of cancellation by both the Principal and the administrative authority, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety and to the administrative authority, provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the administrative authority.

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly in accordance with LAC 33:V.Chapter 37, and the conditions of the Hazardous Waste Facility permit so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase or decrease without the written permission of the administrative authority.

The Principal and Surety(ies) hereby agree that no portion of the penal sum may be expended without prior written approval of the administrative authority.

IN WITNESS WHEREOF, the Principal and the Surety(ies) have executed this PERFORMANCE BOND and have affixed their seals on the date set forth above.

Those persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies), and that the wording of this surety bond is identical to the wording specified in LAC 33:V.3719.C as such regulation was constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY(IES)

[Name and address]

State of incorporation: _____

Liability limit: $ _____

[Signature(s)]

[Name(s) and title(s)]

[Corporate Seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $ _____

D. Letter of Credit. A letter of credit, as specified in LAC 33:V.3707.D or 3711.D or 4403.C or 4407.C must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT

Secretary

Louisiana Department of Environmental Quality

P.O. Box 82231

Baton Rouge, LA 70884-2231

Dear [Sir or Madam]:

We hereby establish our Irrevocable Standby Letter of Credit Number ____ in favor of the Department of Environmental Quality of the State of Louisiana at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of U.S. dollars $_____upon presentation of:

1. a sight draft, bearing reference to the Letter of Credit Number____drawn by the Secretary or his or her designated representative, together with;

2. a statement signed by the Secretary or his or her designated representative, reading as follows:

"I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Louisiana Environmental Quality Act, R.S. 30:2001, et seq."

This Letter of Credit is effective as of _____ , _____ , and shall expire on_____ , [date at least one year later], but such expiration date will be automatically extended for a period of at least one year on the above expiration date [____, _____] and on each successive expiration date thereafter, unless, at least 120 days before the then current expiration date, we notify both you and [name of owner/operator] by certified mail that we have decided not to extend this Letter of Credit beyond the then current expiration date. In the event we give such notification, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [name of owner/operator], as shown on the signed return receipts.

Whenever this Letter of Credit is drawn under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [name of owner/operator] in accordance with your instructions.

We certify that the wording of this Letter of Credit is identical to the wording specified in LAC 33:V.3719.D as such regulations were constituted on the date shown immediately below.

[Signature(s) and Titles of Official(s) of issuing institutions]

[DATE]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

E. A certificate of insurance, as specified in LAC 33:V.3707.E or 3711.E or 4403.D or 4407.D, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer

(herein called the "Insurer"): _____

Name and Address of Insured

(herein called the "Insured"): _____

Facilities Covered: [List for each facility: EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered must total the face amount shown below).]

Face Amount: $ _____

Policy Number: _____

Effective Date: _____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and post-closure care" or "post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of LAC 33:V.3707.E, 3711.E, 4403.D, and 4407.D as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the administrative authority, the Insurer agrees to furnish to the administrative authority a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in LAC 33:V.3719.E as such regulations were constituted on the date shown immediately below and that Insurer is authorized to conduct insurance business in the State of Louisiana.

[Authorized signature for Insurer]

[Name of person signing][Title of person signing]

Signature of witness or notary: _____ *[Date]*

F. Closure Guarantee. A letter from the chief financial officer, as specified in LAC 33:V:3707.F.3 or 3711.F.3 or 4403.E.3 or 4407.E.3 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

LETTER FROM CHIEF FINANCIAL OFFICER

Secretary

Louisiana Department of Environmental Quality

P.O. Box 82231

Baton Rouge, LA 70884-2231

Dear [Sir or Madam]:

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs, as specified in LAC 33:V.Chapter 37 and 43.

[Fill out the following five paragraphs. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost as to whether it is for closure or post-closure.]

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure costs is being demonstrated through the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the guarantee specified in LAC 33:V.Chapters 37 and 43, financial assurance for closure or post-closure costs at the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) the direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing each relationship to this letter].

3. In states other than Louisiana, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____.

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the U.S. Environmental Protection Agency or to a state through the financial test or any other financial assurance mechanism specified in

LAC 33:V.Chapters 37 and 43 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1 or 3711.F.1 or the first criteria of LAC 33:V.4403.E.1 or 4407.E.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1 or 3711.F.1 or the second criteria of LAC 33:V.4403.E.1 or 4407.E.1 are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure estimates [total of all cost estimates shown in the five paragraphs above]: $_____

**2. Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]:* $ _____

**3. Tangible net worth:* $ _____

**4. Net worth:* $_____

**5. Current assests:* $_____

**6. Current Liabilities:* $_____

7. Net working capital [line 5 minus line 6]: $_____

**8. The sum of net income plus depreciation, depletion, and amortization:*

**9. Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.):* $ _____

	YES	NO
10. Is line 3 at least $10 million?	___	___
11. Is line 3 at least six times line 1?	___	___
12. Is line 7 at least six times line 1?	___	___

**13. Are at least 90 percent of firm's assets located in the U.S.? If not, complete line 14.* ___ ___

14. Is line 9 at least six times line 1? ___ ___

15. Is line 2 divided by line 4 less than 2.0?

___ ___

16. Is line 8 divided by line 2 greater than 0.1?

___ ___

17. Is line 5 divided by line 6 greater than 1.5?

___ ___

ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the five paragraphs above] $_____

2. Current bond rating of most recent issuance of this firm and name of rating service: _____

3. Date of issuance of bond: _____

4. Date of maturity of bond: _____

**5. Tangible net worth [if any portion of the closure and post-closure cost estimate is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line]:* $ _____

**6. Total assets in U.S. [required only if less than 90 percent of firm's assets are located in the U.S.]:* $ _____

YES NO

7. Is line 5 at least $10 million? ___ ___

**8. Is line 5 greater than six times line 1?* ___ ___

**9. Are at least 90 percent of firm's assets located in the U.S.? If not, complete line 10.* ___ ___

10. Is line 6 at least six times line 1? ___ ___

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:V.3719.F as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

G. Liability Coverage Guarantee. A letter from the chief financial officer, as specified in LAC 33:V.3715.F or 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Secretary

Louisiana Department of Environmental Quality

P.O. Box 82231

Baton Rouge, LA 70884-2231

Dear [Sir or Madam]:

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in LAC 33:V.Chapter 37 or 43.

[Fill out the following paragraph regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, and address.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in LAC 33:V.Chapter 37 or 43.

The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapter 37 or 43, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____. The firm identified above is [insert one or more: (1) the direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

---

2. The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapters 37 and 43, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:

---

3. In states other than Louisiana, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the U.S. Environmental Protection Agency or to a state through the financial test or any other financial assurance mechanism in LAC 33:V.Chapters 37 and 43 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under the applicable regulations of the Louisiana Department of Natural Resources and is assured through a financial test. The current closure cost estimates as required by LDNR are shown for each facility: _____

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed year, ended [date].

[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements under LAC 33:V.Chapters 37 and 43.]

PART A. LIABILITY COVERAGE FOR SUDDEN AND NONSUDDEN OCCURRENCES

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1 or 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1 or 4411.F.1 or 4411.F.1are used.]

ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated: $ _____

**2. Current assets:* $ _____

**3. Current liabilities:* $ _____

**4. Net working capital (line 2 minus line 3):* $ _____

**5. Tangible net worth:* $ _____

**6. Total assets in the U.S. (required only if less than 90 percent of the firm's assets are located in the U.S.):* $____

	YES	*NO*
7. Is line 5 at least $10 million?	____	____

**8. Is line 4 at least six times line 1?* ___ ___

9. Is line 5 at least six times line 1? ___ ___

10. Are at least 90 percent of assets located in the U.S.? If not, complete line 11.

___

11. Is line 6 at least six times line 1? ___ ___

ALTERNATIVE II

1. Amount of annual aggregate liability coverage to be demonstrated: $_____

2. Current bond rating of most recent issuance and name of rating service: _____

3. Date of issuance of bond: _____

4. Date of maturity of bond: _____

**5. Tangible net worth:* $_____

**6. Total assets in U.S. (required only if less than 90 percent of assets are located in the U.S.):* $_____

YES NO

7. Is line 5 at least $10 million? ___ ___

**8. Is line 5 at least six times line 1?* ___ ___

9. Are at least 90 percent of assets located in the U.S.? If not, complete line 10.

___ ___

10. Is line 6 at least six times line 1? ___ ___

[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]

PART B. CLOSURE OR POST-CLOSURE CARE AND LIABILITY COVERAGE

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the first criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the second criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above): $_____

2. Amount of annual aggregate liability coverage to be demonstrated: $_____

3. Sum of lines 1 and 2: $_____

**4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6):* $_____

**5. Tangible net worth:* $_____

**6. Net worth:* $_____

*7. Current assets: $_____

*8. Current liabilities: $_____

9. Net working capital (line 7 minus line 8):$_____

10. The sum of net income plus depreciation, depletion, and amortization: $_____

*11. Total assets in the U.S. (required only if less than 90 percent of firm's assets are located in the U.S.): $_____

	YES	NO
12. Is line 5 at least $10 million?	___	___
13. Is line 5 at least six times line 3?	___	___
14. Is line 9 at least six times line 3?	___	___
*15. Are at least 90 percent of assets located in the U.S.? If not, complete line 16.	___	___
16. Is line 11 at least six times line 3?	___	___
17. Is line 4 divided by line 6 less than 2.0?	___	___
18. Is line 10 divided by line 4 greater than 0.1?	___	___
19. Is line 7 divided by line 8 greater than 1.5?	___	___

ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above): $_____

2. Amount of annual aggregate liability coverage to be demonstrated: $_____

3. Sum of lines 1 and 2: $_____

4. Current bond rating of most recent issuance and name of rating service: _____

5. Date of issuance of bond: _____

6. Date of maturity of bond: _____

*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line): $_____

*8. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.): $_____

	YES	NO
9. Is line 7 at least $10 million?	___	___

**10. Is line 7 at least six times line 3?* ___ ___

11. Are at least 90 percent of assets located in the U.S.? If not, complete line 12.

___

12. Is line 8 at least six times line 3? ___ ___

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:V.3719.G as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

H. Corporate Guarantees

1. A corporate guarantee, as specified in LAC 33:V.3707.F or 3711.F or 4403.E or 4407.E must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the bracket deleted.

CORPORATE GUARANTEE FOR CLOSURE OR

POST-CLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor, to the Louisiana Department of Environmental Quality, obligee, on behalf of [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in LAC 33:V.3703.H or 4399"].

Recitals:

a. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in LAC 33:V.3707.F, 3711.F, 4403.E, and 4407.E.

b. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]

c. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by LAC 33:V.Chapters 35 and 43 for the closure and post-closure care of facilities as identified above.

d. For value received from [owner or operator], guarantor guarantees to the Louisiana Department of Environmental Quality that in the event that [owner or operator] fails to perform [insert "closure," "post-closure care," or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure

plans and other permit or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in LAC 33:V.Chapter 37 or 43, as applicable, in the name of [owner or operator] in the amount of the current closure or post-closure cost estimates as specified in LAC 33:V.Chapter 37 or 43.

e. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the administrative authority and to [owner or operator] that he intends to provide alternative financial assurance as specified in LAC 33:V.Chapter 37 or 43, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

f. The guarantor agrees to notify the administrative authority by certified mail, of a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

g. Guarantor agrees that within 30 days after being notified by the administrative authority of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in LAC 33:V.Chapter 37 or 43, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

h. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to LAC 33:V.Chapter 37 or 43.

i. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of LAC 33:V.Chapter 37 or 43 for the above-listed facilities, except as provided in this Paragraph of this agreement. [Insert the following language if the guarantor is a direct or higher-tier corporate parent, or a firm whose parent corporation is also the parent corporation of the owner or operator]: Guarantor may cancel this guarantee by sending notice by certified mail to the administrative authority and to [owner or operator], provided that this guarantee may not be canceled unless and until [the owner or operator] obtains, and the administrative authority approve(s), alternate closure and/or post-closure care coverage complying with LAC 33:V.3707, 3711, 4403, and 4407.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator]:

Guarantor may cancel this guarantee 120 days following the receipt of notification, through certified mail, by the administrative authority, and by the owner or operator.

j. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in LAC 33:V.Chapter 37 or 43, as applicable, and obtain written approval of such assurance from the administrative authority within 90 days after a notice of cancellation by the guarantor is received by the administrative authority from

guarantor, guarantor shall provide such alternative financial assurance in the name of [owner or operator].

k. Guarantor expressly waives notice of acceptance of this guarantee by the administrative authority or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in LAC 33:V.3719.H.1 as such regulations were constituted on the date first above written.

Effective dates: _____

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Thus sworn and signed before me on this the _____ day of ___, 20____.

_____

Notary Public

2. A guarantee, as specified in LAC 33:V.3715.G or 4411.G, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

GUARANTEE FOR LIABILITY COVERAGE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of ___" and insert name of state; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the state of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in LAC 33:V.3703 or 4399"], to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or non-sudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

a. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in LAC 33:V.3715.G and 4411.G.

b. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA identification number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each state and in Louisiana.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "non-sudden" or "both sudden and non-sudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

c. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage identified above.

d. Exclusions. This guarantee does not apply to:

i. Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

ii. Any obligation of the owner or operator under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

iii. Bodily injury to:

(a). an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(b). the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of, employment by [insert owner or operator].

This exclusion applies:

(i). whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(ii). to any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in Subclauses (a) and (b).

iv. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

v. Property damage to:

(a). any property owned, rented, or occupied by [insert owner or operator];

(b). premises that are sold, given away, or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(c). property loaned to [insert owner or operator];

(d). personal property in the care, custody, or control of [insert owner or operator];

(e). that particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

e. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the administrative authority and to [owner or operator] that he intends to provide alternate liability coverage as specified in LAC 33:V.3715 and 4411, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

f. The guarantor agrees to notify the administrative authority by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

g. Guarantor agrees that within 30 days after being notified by the administrative authority of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in LAC 33:V.3715 or 4411 in the name of [owner or operator], unless [owner or operator] has done so.

h. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by LAC:33:V.3715 and 4411, provided that such modification shall become effective only if the administrative authority does not disapprove the modification within 30 days of receipt of notification of the modification.

i. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of LAC 33:V.3715 and 4411 for the above-listed facility(ies), except as provided in Subparagraph j of this agreement.

j. [Insert the following language if the guarantor is a direct or higher-tier corporate parent, or a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the administrative authority and to [owner or operator], provided that this guarantee may not be terminated unless and until the [owner or operator] obtains, and the administrative authority approves, alternate liability coverage complying with LAC 33:V.3715 and/or 4411.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the administrative authority and by [the owner or operator].

k. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

l. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

m. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents.

i. Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or non-sudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signatures]

Principal

[Notary] *[Date]*

[Signatures]

Claimant(s)

[Notary] *[Date]*

ii. A valid final court order establishing a judgement against the Principal for bodily injury or property damage caused by sudden or non-sudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

n. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of this guarantee is identical to the wording specified in LAC 33:V.3719.H.2 as such regulations were constituted on the date shown immediately below.

[Name of guarantor]

[Authorized signature of guarantor]

[Name of person signing]

[Title of person signing]

[Signature of witness or notary]

I. Liability Endorsement

1. A hazardous waste facility liability endorsement as required in LAC 33:V.3715 or 4411 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY

LIABILITY ENDORSEMENT

a. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under LAC 33:V.3715.F or 4411. The coverage applies to [EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "non-sudden accidental occurrences," or "sudden and non-sudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for non-sudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

b. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with Clauses i-v of this Subparagraph are hereby amended to conform with Clauses i-v.

i. Bankruptcy or insolvency of the Insured shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

ii. The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in LAC 33:V.3715.F or 4411.

iii. Whenever requested by the administrative authority, the Insurer agrees to furnish to the administrative authority a signed duplicate original of the policy and all endorsements.

iv. Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the administrative authority.

v. Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty days after a copy of such written notice is received by the administrative authority.

2. Attached to and forming part of policy Number ___ issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of Insured] of [address] this ___ day of _____, 20__.

3. I hereby certify that the wording of this endorsement is identical to the wording specified in LAC 33:V.3719.I as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and is authorized to conduct business in the State of Louisiana.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title, Authorized Representative of [Name of Insurer]]

[Address of Representative]

J. Certificate of Liability Insurance. A certificate of liability insurance as required in LAC 33:V.3715 or 4411 must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer") of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under LAC 33:V.3715 or 4411. The coverage applies at [list EPA identification number, name, and address for each facility] for [insert "sudden accidental occurrences," "non-sudden accidental occurrences," or "sudden and non-sudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for non-sudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number _____, issued on [date]. The effective date of said policy is [date].

2. The insurer further certifies the following with respect to the insurance described in Paragraph 1.

a. Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligation under the policy.

b. The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in LAC 33:V.3715.F or 4411.

c. Whenever requested by the administrative authority, the insurer agrees to furnish to the administrative authority a signed duplicate original of the policy and all endorsements.

d. Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the administrative authority.

e. Any other termination of the insurance will be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the administrative authority.

I hereby certify that the wording of this instrument is identical to the wording specified in LAC 33:V.3719.J as such regulation was constituted on the date this certificate was issued, as indicated below, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [Name of Insurer]

[Address of Representative]

DATE OF ISSUANCE: _____.

K. Letter of Credit. A letter of credit, as specified in LAC 33:V.3715 or 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT

Secretary

Louisiana Department of Environmental Quality

P.O. Box 82231

Baton Rouge, Louisiana 70884-2231

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit Number_____ _in the favor of ["any and all third-party liability claimants" or insert name of trustee of the standby trust fund], at the request and for the account of [owner or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $_____ per occurrence and the annual aggregate amount of [in words] U.S. dollars, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars $_____ per occurrence, and the annual aggregate amount of [in words] U.S. dollars $_____ for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to

this Letter of Credit Number_____, and [insert the following language if the letter of credit is being used without a standby trust fund:]

1. A signed certificate reading as follows:

CERTIFICATE OF VALID CLAIM

The undersigned, as parties [insert principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or non-sudden] accidental occurrence arising from operations of [principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $_____. We hereby certify that the claim does not apply to any of the following:

a. Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

b. Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

c. Bodily injury to:

i. an employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

ii. the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(a). whether [insert principal] may be liable as an employer or in any other capacity; and

(b). to any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in Clause K.1.c.i or ii of this Section.

d. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

e. Property damage to:

i. any property owned, rented, or occupied by [insert principal];

ii. premises that are sold, given away, or abandoned by [insert principal] if the property damage arises out of any part of those premises;

iii. property loaned to [insert principal];

iv. personal property in the care, custody, or control of [insert principal];

v. that particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures]

Grantor

[Signatures]

Claimant(s)

2. Or, as an alternative to the Certificate of Valid Claim, a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

This Letter of Credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the administrative authority, and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this Letter of Credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in LAC 33:V.3719.K as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution [Date]]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits published and copyrighted by the International Chamber of Commerce" or "the Uniform Commercial Code"].

L. Surety Bond. A surety bond, as specified in LAC 33:V.3715 or 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

PAYMENT BOND

Surety Bond Number [insert number]

Parties [insert name and address of owner or operator], Principal, incorporated in [insert state of incorporation] of [insert city and state of principal place of business], and [insert name and address of Surety Company(ies)], surety company(ies), of [insert surety(ies) place of business].

EPA identification number, name, and address for each facility guaranteed by this bond:

	Sudden Accidental Occurrences	*Non-sudden Accidental Occurrences*
Penal Sum per Occurrence	*[insert amount]*	*[insert amount]*
Annual Aggregate	*[insert amount]*	*[insert amount]*

Purpose: This is an agreement between the surety(ies) and the Principal under which the Surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "non-sudden"] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein, subject to the governing provisions and the following conditions.

1. Governing Provisions

a. Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

b. Rules and regulations of the U.S. Environmental Protection Agency (EPA), particularly 40 CFR 264.147 or 265.147 (if applicable).

c. Rules and regulations of the Louisiana Department of Environmental Quality, particularly LAC 33:V.3715 and 4411, as applicable.

2. Conditions

a. The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ["sudden" and/or "non-sudden"] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

i. Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

ii. Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

iii. Bodily injury to:

(a). an employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(b). the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal]. This exclusion applies:

(i). whether [insert principal] may be liable as an employer or in any other capacity; and

(ii). to any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in Subclauses (a) and (b) above.

iv. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

v. Property damage to:

(a). any property owned, rented, or occupied by [insert principal];

(b). premises that are sold, given away, or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(c). property loaned to [insert Principal];

(d). personal property in the care, custody, or control of [insert Principal];

(e). that particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

b. This bond assures that the Principal will satisfy valid third-party liability claims, as described in Condition A.

c. If the Principal fails to satisfy a valid third-party liability claim, as described above, the Surety(ies) become(s) liable on this bond obligation.

d. The Surety(ies) shall satisfy a third-party liability claim only upon the receipt of one of the following documents.

i. Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert name of Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or non-sudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signature]

Principal

[Notary] *[Date]*

[Signature(s)]

Claimant(s)

[Notary] *[Date]*

ii. A valid final court order establishing a judgement against the Principal for bodily injury or property damage caused by sudden or non-sudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

e. In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

f. The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the administrative authority forthwith of all claims filed and payments made by the Surety(ies) under this bond.

g. The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the administrative authority, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the administrative authority, as evidenced by the return receipt.

h. The Principal may terminate this bond by sending written notice to the Surety(ies) and to the administrative authority.

i. The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

j. This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in LAC 33:V.3719, as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]

State of incorporation:

Liability Limit: $

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond premium: $

M. Trust Agreement

1. A trust agreement, as specified in LAC 33:V.3715 and 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the state of ____ " or "a national bank"], the "Trustee."

WHEREAS, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

WHEREAS, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

a. The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

b. The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities

This agreement pertains to the facilities identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ [up to $5 million] per occurrence and ____ [up to $10 million] annual aggregate for sudden accidental occurrences, exclusive of legal defense costs and _____ [up to $3 million] per occurrence and _____ [up to $6 million] annual aggregate for nonsudden occurrences exclusive of legal defense costs, except that the Fund is not established for the benefit of third parties for the following:

a. Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

b. Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

c. Bodily injury to:

i. an employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

ii. the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(a). whether [insert Grantor] may be liable as an employer or in any other capacity; and

(b). to any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in Clauses i and ii above.

d. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

e. Property damage to:

i. any property owned, rented, or occupied by [insert Grantor];

ii. premises that are sold, given away, or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

iii. property loaned to [insert Grantor];

iv. personal property in the care, custody, or control of [insert Grantor];

v. that particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage

The Trustee shall satisfy a third-party liability claim by making payments from the Fund only upon receipt of one of the following documents.

a. Certification from the Grantor and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Grantor] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or non-sudden] accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signatures]

Grantor

[Signatures]

Claimant(s)

b. A valid final court order establishing a judgement against the Grantor for bodily injury or property damage caused by sudden or non-sudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund.

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management

The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such

matters, would use in the conduct of an enterprise of a like character and with like aims, except that:

a. securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the federal or a state government;

b. the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

c. the Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

a. to transfer from time to time any or all of the assets of the Fund to any common commingled or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

b. to purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the trustee is expressly authorized and empowered:

a. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition.

b. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted.

c. To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund.

d. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government.

e. To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the fund.

Section 10. Annual Valuations

The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the administrative authority a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the administrative authority shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the administrative authority, and the present Trustee by certified mail 10 days before such change becomes

effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the administrative authority to the Trustee shall be in writing, signed by the administrative authority, or his or her designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the grantor or the administrative authority hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the administrative authority, except as provided for herein.

Section 15. Notice of Nonpayment

If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equalling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the administrative authority.

Section 16. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority if the Grantor ceases to exist.

Section 17. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The administrative authority will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in LAC 33:V.Chapter 37 or 44.

Section 18. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the administrative authority issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the State of Louisiana.

Section 20. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in LAC 33:V.3719 as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in LAC 33:V.3715 or 4411.

State of Louisiana

Parish of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such

instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed her/his name thereto by like order.

Witness:

_____

_____ _____

THUS DONE AND SIGNED before me this _____day of _____, _____, in

_____

NOTARY PUBLIC

N. Standby Trust Agreement

1. A standby trust agreement, as specified in LAC 33:V.3715.H. or 4411.H, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

STANDBY TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "Trustee."

WHEREAS, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or non-sudden accidental occurrences arising from operations of the facility or group of facilities.

WHEREAS, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assume all or part of such financial responsibility for the facilities identified herein.

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the trustee is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

a. The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

b. The term "Trustee" means the trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities

This agreement pertains to the facilities identified on attached Schedule A [on Schedule A, for each facility list the EPA identification number, name, and address of the

facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or non-sudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____[up to $1 million] per occurrence and _____[up to $2 million] annual aggregate for sudden accidental occurrences, and _____[up to $3 million] per occurrence and _____[up to $6 million] annual aggregate for non-sudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

a. Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

b. Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

c. Bodily injury to:

i. an employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

ii. the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(a). whether [insert Grantor] may be liable as an employer or in any other capacity, and

(b). to any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in Clauses i and ii above.

d. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

e. Property damage to:

i. any property owned, rented, or occupied by [insert Grantor];

ii. premises that are sold, given away, or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

iii. property loaned to [insert Grantor];

iv. personal property in the care, custody, or control of [insert Grantor];

v. that particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage

The Trustee shall satisfy a third-party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

a. Certification from the Grantor and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Grantor] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or non-sudden] accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[_____].

[Signatures]

Grantor

[Signatures]

Claimant(s)

b. A valid final court order establishing a judgement against the Grantor for bodily injury or property damage caused by sudden or non-sudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of LAC 33:V.3719.K and Section 4 of this Agreement.

Section 6. Trustee Management

The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the

Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims, except that:

a. securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

b. the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or a state government; and

c. the Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for payment of interest thereon.

Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

a. to transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

b. to purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, and Trustee is expressly authorized and empowered:

a. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency or any such sale or other disposition.

b. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted.

c. To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited herein by another person, or to deposit or arrange for the

deposit of any securities issued by the United States government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund.

d. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government.

e. To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the administrative authority, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee

All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee

shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the administrative authority hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the administrative authority, except as provided for herein.

Section 14. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the administrative authority if the grantor ceases to exist.

Section 15. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the grantor.

The administrative authority will agree to termination of the Trust when the owner or operator substitutes alternative financial assurances as specified in LAC 33:V.Chapter 37 or 44.

Section 16. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the administrative authority issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the State of Louisiana.

Section 18. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in LAC 33:V.3719.N as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgement which must accompany the trust agreement for a standby trust fund as specified in LAC 33:V.3715.H or 4411.H.

State of Louisiana

Parish of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

Witness:

_____

_____

_____

THUS DONE AND SIGNED before me this _____ day of _____, _____, in _____.

_____

NOTARY PUBLIC

The instruments utilized by Clean Harbors Colfax, LLC are located in Appendix N. The wording of each instrument is in accordance with the applicable regulatory requirements specified above.

CHAPTER 43

INTERIM STATUS

4301. Purpose and Applicability

A. The purpose of interim status is to allow existing facilities to operate in an appropriate and responsible manner during the period of time required to process and review permit application or until certification of final closure, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled. Interim status facilities must, when required by the administrative authority, submit a permit application in compliance with the requirements of these regulations. Failure to submit an application is a violation of interim status and will result in revocation of a facility's interim status designation. Once revoked the facility will be treated as an unpermitted facility and appropriate legal action will be taken.

Clean Harbors Colfax, LLC, CH(CO), acknowledges the requirements of these regulations. CH (CO) will comply with any applicable standards of this chapter, to the extent that they are applicable.

CHAPTER 49

LISTS OF HAZARDOUS WASTES

4901. Category I Hazardous Wastes

A. A solid waste is a hazardous waste if it is listed in this Chapter, unless it has been excluded from this list under LAC 33:V.105.M.

[Comment: Chapter 49 is divided into two sections: Category I Hazardous Wastes, which consist of Hazardous Wastes from nonspecific and specific sources (F and K wastes), Acute Hazardous Wastes (P wastes), and Toxic Wastes (U wastes) (LAC 33:V.4901); and Category II Hazardous Wastes, which consist of wastes which are ignitable, corrosive, reactive, or toxic (LAC 33:V.4903).]

Hazard codes are defined as follows for the listed hazardous wastes.

Ignitable waste	*(I)*
Corrosive waste	*(C)*
Reactive waste	*(R)*
Toxicity Characteristic waste	*(E)*
Acute hazardous waste or acutely hazardous waste	*(H)*
Toxic waste	*(T)*

1. Each hazardous waste listed in this Chapter is assigned an EPA Hazardous Waste number, which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 or 105.A of the act and certain recordkeeping and reporting requirements under LAC 33:V.Chapters 3-29, 31-38, and 43.

2. The following hazardous wastes listed in LAC 33:V.4901.B and C are subject to the exclusion limits for acutely hazardous wastes established in LAC 33:V.108: EPA Hazardous Wastes Numbers F020, F021, F022, F023, F026, and F027.

Clean Harbors Colfax, LLC, [CH (CO)], manages materials that are categorized as Category I hazardous wastes. Wastes received from various sources are properly identified so that the hazardous characteristics of the wastes are immediately apparent to personnel. Some wastes require determination of their hazardous nature and are Category II wastes. Proper codes are utilized. Lists of Category I and Category II wastes accepted at Clean Harbors Colfax, LLC are presented in the Permit Application Part I.

B. Hazardous Wastes from Nonspecific Sources

1. The following solid wastes are listed hazardous wastes from nonspecific sources unless they are excluded in accordance with LAC 33:V.105.H.

Hazardous wastes handled at CH (CO) are listed in the Permit Application Part I.

Table 1. Hazardous Wastes from Nonspecific Sources

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
Generic		
F001	*(T)*	*The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.*
F002	*(T)*	*The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-tri-fluoroethane, ortho-dichlorobenzene, tri-chlorofluoromethane and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.*
F003	*(I)*	*The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10 percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.*
F004	*(T)*	*The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.*
F005	*(I,T)*	*The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.*

Table 1. Hazardous Wastes from Nonspecific Sources

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
F006	*(T)*	*Wastewater treatment sludges from electroplating operations except from the following processes:* *(1) Sulfuric acid anodizing of aluminum;* *(2) tin plating on carbon steel;* *(3) zinc plating (segregated basis) on carbon steel;* *(4) aluminum or zinc-aluminum plating on carbon steel;* *(5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and* *(6) chemical etching and milling of aluminum.*
F007	*(R,T)*	*Spent cyanide plating bath solutions from electroplating operations.*
F008	*(R,T)*	*Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.*
F009	*(R,T)*	*Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.*
F010	*(R,T)*	*Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.*
F011	*(R,T)*	*Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.*
F012	*(T)*	*Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.*
F019	*(T)*	*Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.*
F020	*(H)*	*Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)*
F021	*(H)*	*Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.*
F022	*(H)*	*Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.*

Table 1. Hazardous Wastes from Nonspecific Sources

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
F023	*(H)*	*Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)*
F024	*(T)*	*Processed wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in LAC 33:V.4901.B or C.)*
F025	*(T)*	*Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.*
F026	*(H)*	*Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.*
F027	*(H)*	*Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)*
F028	*(T)*	*Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.*
F032	*(T)*	*Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with LAC 33:V.4901.B.3 of this Subpart and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.*

Table 1. Hazardous Wastes from Nonspecific Sources

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
F034	*(T)*	*Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.*
F035	*(T)*	*Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.*
F037	*(T)*	*Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators, tanks and impoundments, ditches and other conveyances, sumps, and stormwater units receiving dry weather flow, sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in LAC 33:V.4901.B.2.b (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under LAC 33:V.105.D.1.l, if those residuals are to be disposed of.*
F038	*(T)*	*Petroleum refinery secondary (emulsified) oil/water/solids separation sludge—Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in LAC 33:V.4901.B.2.b (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.*

Table 1. Hazardous Wastes from Nonspecific Sources

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
F039	*(T)*	*Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under LAC 33:V.4901. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)*

** (I,T) should be used to specify mixtures containing ignitable and toxic constituents.*

2. Listing Specific Definitions

a. For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.

b. For the purposes of the F037 and F038 listing:

ii. high-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and

(a). the unit employs a minimum of six hp per million gallons of treatment volume; and either

(b). the hydraulic retention time of the unit is no longer than five days; or

(c). the hydraulic retention time is no longer than 30 days, and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

iii. generators and treatment, storage, and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage, and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that:

(a). the unit is an aggressive biological treatment unit as defined in this Subparagraph; and

(b). the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

c. For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement. For the purposes of the F038 listing:

i. *sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement; and*

ii. *floats are considered to be generated at the moment they are formed in the top of the unit.*

3. *Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement*

a. *Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of Subparagraphs B.3.b and c of this Section. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.*

b. *Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including but not limited to treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the groundwater, surface water, or atmosphere.*

i. *Generators shall do one of the following:*

(a). *prepare and follow an equipment cleaning plan and clean equipment in accordance with this Section;*

(b). *prepare and follow an equipment replacement plan and replace equipment in accordance with this Section; or*

(c). *document cleaning and replacement in accordance with this Section, carried out after termination of use of chlorophenolic preservations;*

ii. *Cleaning Requirements*

(a). *prepare and sign a written equipment cleaning plan that describes:*

(i). *the equipment to be cleaned;*

(ii). *how the equipment will be cleaned;*

(iii). *the solvent to be used in cleaning;*

(iv). *how solvent rinses will be tested; and*

(v). *how cleaning residues will be disposed.*

(b). *equipment must be cleaned as follows:*

(i). *remove all visible residues from process equipment; and*

(ii). *rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.*

(c). *Analytical Requirements*

(i). rinses must be tested in accordance with Method 8290, as described in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110;

(ii). "Not detected" means at or below the lower method calibration limit (MCL) in Method 8290, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." EPA Publication SW-846, as incorporated by reference at LAC 33:V.110;

(d). The generator must manage all residues from the cleaning process as F032 waste.

iii. Replacement Requirements

(a). prepare and sign a written equipment replacement plan that describes:

(i). the equipment to be replaced;

(ii). how the equipment will be replaced; and

(iii). how the equipment will be disposed.

(b). the generator must manage the discarded equipment as F032 waste.

iv. Documentation is required which states that previous equipment cleaning and/or replacement was performed in accordance with this Section and occurred after cessation of use of chlorophenolic preservatives.

c. The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

i. the name and address of the facility;

ii. formulations previously used and the date on which their use ceased in each process at the plant;

iii. formulations currently used in each process at the plant;

iv. the equipment cleaning or replacement plan;

v. the name and address of any persons who conducted the cleaning and replacement;

vi. the dates on which cleaning and replacement were accomplished:

vii. the dates of sampling and testing;

viii. a description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

ix. a description of the tests performed, the date the tests were performed, and the results of the tests;

x. the name and model numbers of the instrument(s) used in performing the tests;

xi. QA/QC documentation; and

xii. the following statement signed by the generator or his authorized representative:

"I certify under penalty of law that all process equipment required to be cleaned or replaced under LAC 33:V.4901.B was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."

C. Hazardous wastes from specific sources are listed in Table 2.

Table 2. Hazardous Wastes from Specific Sources

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Wood Preservation		
K001	(T)	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.
Inorganic Pigments		
K002	(T)	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	(T)	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	(T)	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	(T)	Wastewater treatment sludge from the production of chrome green pigments.
K006	(T)	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	(T)	Wastewater treatment sludge from the production of iron blue pigments.
K008	(T)	Oven residue from the production of chrome oxide green pigments.
Organic Chemicals		
K009	(T)	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	(T)	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	(R,T)	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	(R,T)	Bottom stream from the acetonitrile column in the production of acrylonitrile.
K014	(T)	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K015	(T)	Still bottoms from the distillation of benzyl chloride.
K016	(T)	Heavy ends of distillation residues from the production of carbon tetrachloride.
K017	(T)	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.
K018	(T)	Heavy ends from the fractionation column in ethyl chloride production.
K019	(T)	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
K020	(T)	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K021	(T)	Aqueous spent antimony catalyst waste from fluoromethanes production.
K022	(T)	Distillation bottom tars from the production of phenol/acetone from cumene.
K023	(T)	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	(T)	Distillation bottoms from the production of phthalic anhydride from naphthaline.

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Organic Chemicals continued		
K093	(T)	Distillation light ends from the production of phthalic anhydride from ortho-xylene.
K094	(T)	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.
K025	(T)	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
K026	(T)	Stripping still tails from the production of methyl ethyl pyridines.
K027	(R,T)	Centrifuge and distillation residues from toluene diisocyanate production.
K028	(T)	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.
K029	(T)	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.
K095	(T)	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	(T)	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K030	(T)	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.
K083	(T)	Distillation bottoms from aniline production.
K103	(T)	Process residues from aniline extraction from the production of aniline.
K104	(T)	Combined wastewater streams generated from nitrobenzene/aniline production.
K085	(T)	Distillation or fractionation column bottoms from the production of chlorobenzenes.
K105	(T)	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K107	(C,T)	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
K108	(I,T)	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
K109	(T)	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
K110	(T)	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
K111	(C,T)	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K112	(T)	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Organic Chemicals continued		
K113	(T)	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K114	(T)	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	(T)	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	(T)	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.
K117	(T)	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K118	(T)	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K136	(T)	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K149	(T)	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.)
K150	(T)	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.
K151	(T)	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.
K156	(T)	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)
K157	(T)	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)
K158	(T)	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)
K159	(T)	Organics from the treatment of thiocarbamate wastes.
K161	(R,T)	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust, and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125-K126.)

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Organic Chemicals continued		
K174	(T)	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a RCRA subtitle C or nonhazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of RCRA subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill,) that the terms of the exclusion were met.
K175	(T)	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.
Inorganic Chemicals		
K071	(T)	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.
K073	(T)	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.
K106	(T)	Wastewater treatment sludge from the mercury cell process in chlorine production.
K176	(E)	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide).
K177	(T)	Slag from the production of antimony accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide).
K178	(T)	Residues from manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.
Pesticides		
K031	(T)	By-product salts generated in the production of MSMA and cacodylic acid.
K032	(T)	Wastewater treatment sludge from the production of chlordane.
K033	(T)	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	(T)	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Pesticides continued		
K097	(T)	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.
K035	(T)	Wastewater treatment sludges generated in the production of creosote.
K036	(T)	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	(T)	Wastewater treatment sludges from the production of disulfoton.
K038	(T)	Wastewater treatment sludge from the washing and stripping of phorate production.
K039	(T)	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.
K040	(T)	Wastewater treatment sludge from the production of phorate.
K041	(T)	Wastewater treatment sludge from the production of toxaphene.
K098	(T)	Untreated process wastewater from the production of toxaphene.
K042	(T)	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.
K043	(T)	2,6-Dichlorophenol waste from the production of 2,4-D.
K099	(T)	Untreated wastewater from the production of 2,4-D.
K123	(T)	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.
K124	(C,T)	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.
K125	(T)	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.
K126	(T)	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.
K131	(C,T)	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide
K132	(T)	Spent absorbent and wastewater separator solids from the production of methyl bromide
Explosives		
K044	(R)	Wastewater treatment sludges from the manufacturing and processing of explosives.
K045	(R)	Spent carbon from the treatment of wastewater containing explosives.
K046	(T)	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds.
K047	(R)	Pink/red water from TNT operations.
Petroleum Refining		
K048	(T)	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	(T)	Slop oil emulsion solids from the petroleum refining industry.
K050	(T)	Heat exchanger bundle cleaning sludge from the petroleum refining industry.

Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste
Petroleum Refining continued		
K051	(T)	API separator sludge from the petroleum refining industry.
K052	(T)	Tank bottom (leaded) from the petroleum refining industry.
K169	(T)	Crude oil tank sediment from petroleum refining operations.
K170	(T)	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations.
K171	(I,T)	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feed to other catalytic reactors (this listing does not include inert support media).
K172	(I,T)	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feed to other catalytic reactors (this listing does not include inert support media).
Iron and Steel		
K061	(T)	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	(C,T)	Spent pickle liquor generated by steel finishing operations of iron and steel industry (SIC Codes 331 and 332).
Primary Aluminum		
K088	(T)	Spent potliners from primary aluminum reduction.
Secondary Lead		
K069	(T)	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action affecting this stay, EPA will publish a notice of the action in the Federal Register.)
K100	(T)	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
Veterinary Pharmaceuticals		
K084	(T)	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K084	(T)	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K101	(T)	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K102	(T)	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
Ink Formulation		
K086	(T)	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

Industry and EPA Hazardous Waste Number	*Hazard Code*	*Hazardous Waste*
Coking		
K060	*(T)*	*Ammonia still lime sludge from coking operations.*
K087	*(T)*	*Decanter tank tar sludge from coking operations.*
K141	*(T)*	*Process residues from the recovery of coal tar, including but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank car sludge from coking operations).*
K142	*(T)*	*Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.*
K143	*(T)*	*Process residues from the recovery of light oil, including but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.*
K144	*(T)*	*Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.*
K145	*(T)*	*Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.*
K147	*(T)*	*Tar storage tank residues from coal tar refining.*
K148	*(T)*	*Residues from coal tar distillation, including but not limited to, still bottoms.*

D. Discarded Commercial Chemical Products, Off-specification Species, Container Residues, Spill Residues Thereof, Any Associated Wastewaters, and Any Discarded Process Wastewaters. The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in LAC 33:V.109 (definition of solid waste), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel, or when they present a threat to groundwater or human health and the environment.

1. any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F;

2. any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in LAC 33:V.4901.E or F;

3. any residue remaining in a container or an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F, unless the container is empty as defined in LAC 33:V.109.Empty Container.2;

4. any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in LAC 33:V.4901.E or F;

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance that is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in LAC 33:V.4901.E or F. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in LAC 33:V.4901.E or F, such waste will be listed in either LAC 33:V.4901.B or C or will be identified as a hazardous waste by the characteristics set forth in LAC 33:V.4903.]

To the extent that these regulations apply to CH (CO), the facility will ensure compliance.

E. The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in LAC 33:V.4901.D.1-4 are identified as acute hazardous wastes (H) and are subject to the small quantity exclusions defined in LAC 33:V.108.E. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 3.

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity) and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

To the extent that these regulations apply to CH (CO), the facility will ensure compliance.

Table 3. Acute Hazardous Wastes

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1, 2-Benzenediol, 4-[1- hydroxy-2-(methylamino) ethyl], (R)-
P046	122-09-8	Benzeneethanamine, alpha, alpha- dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P001	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy- 3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3 percent
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium Powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methyl- thio)-, O- [(methylamino) carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pryazol-3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pryazol-5-yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphor- othioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta, 8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth [2,3- b]oxirene,3,4,5,6,9,9- hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	[1]72-20-8	2,7:3,6-Dimethanonaphth [2,3-b] oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha,2beta,2abeta, 3alpha,6alpha,6abeta,7beta, 7aalpha)-, and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha, alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan
P047	[1]534-52-1	4,6-Dinitro-o-cresol, and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2, 4-dimethyl-, O-[(methylamino)-carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
P066	16752-77-5	Ethanimidothioic acid, N- [[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine

EPA Hazardous Waste Number	*Chemical Abstract Number*	*Hazardous Waste*
P057	*640-19-7*	*Fluoroacetamide*
P058	*62-74-8*	*Fluoroacetic acid, sodium salt*
P198	*23422-53-9*	*Formetanate hydrochloride*
P197	*17702-57-7*	*Formparanate*
P065	*628-86-4*	*Fulminic acid, mercury (2+) salt (R,T)*
P059	*76-44-8*	*Heptachlor*
P062	*757-58-4*	*Hexaethyl tetraphosphate*
P116	*79-19-6*	*Hydrazinecarbothioamide*
P068	*60-34-4*	*Hydrazine, methyl-*
P063	*74-90-8*	*Hydrocyanic acid*
P063	*74-90-8*	*Hydrogen cyanide*
P096	*7803-51-2*	*Hydrogen phosphide*
P060	*465-73-6*	*Isodrin*
P192	*119-38-0*	*Isolan*
P202	*64-00-6*	*Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester*
P007	*2763-96-4*	*3 (2H)-Isoxazolone, 5-(aminomethyl)-*
P196	*15339-36-3*	*Manganese, bis(dimethylcarbamodithioato-S,S')-*
P196	*15339-36-3*	*Manganese, dimethyldithiocarbamate*
P092	*62-38-4*	*Mercury, (acetato-O)phenyl-*
P065	*628-86-4*	*Mercury fulminate (R,T)*
P082	*62-75-9*	*Methanamine, N-methyl-N-nitroso-*
P064	*624-83-9*	*Methane, isocyanato-*
P016	*542-88-1*	*Methane, oxybis[chloro-*
P112	*509-14-8*	*Methane, tetranitro- (R)*
P118	*75-70-7*	*Methanethiol, trichloro-*
P198	*23422-53-9*	*Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-cabonyl]oxy]pehnyl]-monohydrochloride*
P197	*17702-57-7*	*Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)cabonyl]oxy]pehnyl]-*
P050	*115-29-7*	*6, 9-Methano-2,4,3-benzo-dioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6.9,9a- hexahydro-,3-oxide*
P059	*76-44-8*	*4,7-Methano-1H-indene,1,4,5,6.7, 8,8-heptachloro-3a,4,7,7a-tetrahydro-*
P199	*2032-65-7*	*Methiocarb*
P066	*16752-77-5*	*Methomyl*
P068	*60-34-4*	*Methyl hydrazine*
P064	*624-83-9*	*Methyl isocyanate*
P069	*75-86-5*	*2-Methyllactonitrile*

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P128	315-8-4	Mexacarbate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$ (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	[T]54-11-5	Nicotine, and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, mehtylcarbamate (ester)
P048	51-28-5	Phenol, 2,4-dinitro-
P047	[T]534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O- diethyl S-[2-(ethyl- thio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O, O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O, O-dimethyl S-[2-(methylamino)- 2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis (1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4- [(dimethylamino)sulfonyl] phenyl]O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sufonyl)-, O-[(methylamino)carbonyl] oxime
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-o1
P008	504-24-5	4-Pyridinamine
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (s)- and salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1.2,3,3a,8.8a-hexahydro-1,3a,8-trimethyl-,methylcarbamate (ester), (3aS-cis)-
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	[1]57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57-24-9	Strychnine, and salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyllead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81-81-2	Warfarin, and salts, when present at concentrations greater than 0.3 percent
P205	137-30-4	Zinc,bis(dimethyl-carbamodithioato-S,S')-
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10 percent (R,T)
P205	137-30-4	Ziram

[1]CAS Number given for parent compound only.

F. Commercial chemical products or manufacturing chemical intermediates or off-specification commercial chemical products referred to in LAC 33:V.4901.D.1-4 are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity generator exclusion defined in LAC 33:V.108.A and G. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 4.

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). Absence of a letter indicates that the compound is listed only for toxicity.]

To the extent that these regulations apply to CH (CO), the facility will ensure compliance.

Table 4. Toxic Wastes

EPA Hazardous Waste Number	*Chemical Abstract Number*	*Hazardous Waste*
U394	*30558-43-1*	*A2213*
U001	*75-07-0*	*Acetaldehyde (I)*
U034	*75-87-6*	*Acetaldehyde, trichloro-*
U187	*62-44-2*	*Acetamide, N-(4-ethoxyphenyl)-*
U005	*53-96-3*	*Acetamide, N-9H-fluoren-2-yl-*
U240	*94-75-7*	*Acetic acid, (2,4-dichloro- phenoxy)-, salts and esters*
U112	*141-78-6*	*Acetic acid, ethyl ester (I)*
U144	*301-04-02*	*Acetic acid, lead (2+) salt*
U214	*563-68-8*	*Acetic acid, thallium(1+) salt*
See F027	*93-76-5*	*Acetic acid, (2,4,5-trichlorophenoxy)-*
U002	*67-64-1*	*Acetone (I)*
U003	*75-05-8*	*Acetonitrile (I,T)*
U004	*98-86-2*	*Acetophenone*
U005	*53-96-3*	*2-Acetylaminofluorene*
U006	*75-36-5*	*Acetyl chloride (C,R,T)*
U007	*79-06-1*	*Acrylamide*
U008	*79-10-7*	*Acrylic acid (I)*
U009	*107-13-1*	*Acrylonitrile*
U011	*61-82-5*	*Amitrole*
U012	*62-53-3*	*Aniline (I,T)*
U136	*75-60-5*	*Arsinic acid, dimethyl-*
U014	*492-80-8*	*Auramine*
U015	*115-02-6*	*Azaserine*
U010	*50-07-7*	*Azirino [2',3':3,4]pyrrolo[1,2-a] indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy]methyl]- 1,1a,2,8,8a,8b,-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha.8beta,8aalpha,8balpha)]-*
U280	*101-27-9*	*Barban*
U278	*22781-23-3*	*Bendiocarb*
U364	*22961-82-6*	*Bendiocarb phenol*
U271	*17804-35-2*	*Benomyl*
U157	*56-49-5*	*Benz (j) aceanthrylene, 1,2-dihydro-3-methyl-*
U016	*225-51-4*	*Benz(c)acridine*
U016	*225-51-4*	*3,4-Benzacridine*
U017	*98-87-3*	*Benzal chloride*
U192	*23950-58-5*	*Benzamide,3,5-dichloro-N-(1,1-dimethyl-2 propynyl)-*
U018	*56-55-3*	*Benz[a]anthracene*
U094	*57-97-6*	*Benz[a]anthracene, 7,12-dimethyl-*

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine,4,4'-carbonimidoylbis (N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine,N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis [2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha- (4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1, 1'-(2, 2-dichloroethylidene)bis [4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene,1,3-diisocyanatomethyl-(R,T)
U239	1330-20-7	Benzene, dimethyl-(I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro-(I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro
U185	82-68-8	Benzene, pentachloronitro-

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U207	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1, 1'-(2,2.2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1, 1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	[1]81-07-2	1,2-Benzisothiazol-3 (2H)- one,1,1,-dioxide, and salts
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and salts, when present at concentrations of 0.3 percent or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	(1,1'-Biphenyl)-4.4'-diamine
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3.3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene,1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1.4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3- dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin- 1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*), 7aalpha]]-

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H- benzimidazol-2-yl]-, methyl ester
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-,ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-,salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2- propenyl)ester
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha and gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresols (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN) Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane,1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha, 5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	[1]94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane

EPA Hazardous Waste Number	*Chemical Abstract Number*	*Hazardous Waste*
U081	*120-83-2*	*2,4-Dichlorophenol*
U082	*87-65-0*	*2,6-Dichlorophenol*
U084	*542-75-6*	*1,3-Dichloropropene*
U085	*1464-53-5*	*1,2:3,4-Diepoxybutane (I,T)*
U395	*5952-26-1*	*Diethylene glycol, dicarbamate*
U108	*123-91-1*	*1,4-Diethyleneoxide*
U028	*117-81-7*	*Diethylhexyl phthalate*
U086	*1615-80-1*	*N,N'-Diethylhydrazine*
U087	*3288-58-2*	*O,O-Diethyl-S-methyl-dithiophosphate*
U088	*84-66-2*	*Diethyl phthalate*
U089	*56-53-1*	*Diethylstilbestrol*
U090	*94-58-6*	*Dihydrosafrole*
U091	*119-90-4*	*3,3'-Dimethoxybenzidine*
U092	*124-40-3*	*Dimethylamine (I)*
U093	*60-11-7*	*p-Dimethylaminoazobenzene*
U094	*57-97-6*	*7,12-Dimethylbenz[a]anthracene*
U095	*119-93-7*	*3,3'-Dimethylbenzidine*
U096	*80-15-9*	*alpha,alpha-Dimethyl-benzylhydroperoxide (R)*
U097	*79-44-7*	*Dimethylcarbamoyl chloride*
U098	*57-14-7*	*1,1-Dimethylhydrazine*
U099	*540-73-8*	*1,2-Dimethylhydrazine*
U101	*105-67-9*	*2,4-Dimethylphenol*
U102	*131-11-3*	*Dimethyl phthalate*
U103	*77-78-1*	*Dimethyl sulfate*
U105	*121-14-2*	*2,4-Dinitrotoluene*
U106	*606-20-2*	*2,6-Dinitrotoluene*
U107	*117-84-0*	*Di-n-octyl phthalate*
U108	*123-91-1*	*1,4-Dioxane*
U109	*122-66-7*	*1,2-Diphenylhydrazine*
U110	*142-84-7*	*Dipropylamine (I)*
U111	*621-64-7*	*Di-n-propylnitrosamine*
U041	*106-89-8*	*Epichlorohydrin*
U001	*75-07-0*	*Ethanal (I)*
U404	*121-44-8*	*Ethanamine, N,N-diethyl-*
U174	*55-18-5*	*Ethanamine, N-ethyl-N-nitroso-*
U155	*91-80-5*	*1,2-Ethanediamine,-N,N-dimethyl-N'-2- pyridinyl-N'-(2-thienylmethyl)-*

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-
U117	60-29-7	Ethane,1,1'-oxybis-(I)
U025	111-44-4	Ethane, 1,1'-oxybis [2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino) carbonyloxy]]bis-,dimethyl ester
U359	110-80-5	Ethanol,2-ethoxy-
U173	1116-54-7	Ethanol,2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U117	60-29-7	Ethyl ether (I)
U238	51-79-6	Ethyl carbamate (urethane)
U114	111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethlene oxide (I,T)
U116	96-45-7	Ethylene thiourea

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose,2-deoxy-2-(3-methyl-3- nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2- [[(methylnitrosoamino)- carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine,N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen Sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead,bis(acetato-O) tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl-(I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro-(I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene,1,2,4,5,6,7,8,8-octa-chloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta- [cd]pentalen-2-one,1,1a,3,3a,4,5,5,5a, 5b,6- decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3- amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)- oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U026	494-03-1	2-Naphthalenamine,N,N'-bis (2-chloroethyl)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl- [1,1'-biphenyl]-4,4'-diyl) bis(azo)bis[5-amino-4-hydroxy]-,tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1−)salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-13	N-Nitrosodi-n-butylamine

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine,N,N- bis(2-chloroethyl) tetrahydro-,2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2- ethenediyl) bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6- trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U150	148-82-3	L-Phenylalanine, 4-[bis (2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+)salt(2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl,S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine,1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso- N-propyl-
U110	142-84-7	1-Propanamine, N-propyl-(I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro-(I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid,2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	73-83-1	1-Propanol, 2-methoxy-(I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl-(I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham
U411	114-26-1	Propoxur
U194	107-10-8	n-Propylamine (I.T)
U083	78-87-5	Propylene dichloride
U387	52888-80-9	Prosulfocarb
U148	123-33-1	3,6-Pyridazinedione,1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5- [bis(2-chloroethyl) amino]-
U164	56-04-24	(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	[1]81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2(R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2,-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2 S_2$, tetramethyl-
U409	23564-05-8	Thiophanatemethyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine

EPA Hazardous Waste Number	*Chemical Abstract Number*	*Hazardous Waste*
U223	*26471-62-5*	*Toluene diisocyanate (R,T)*
U328	*95-53-4*	*o-Toluidine*
U353	*106-49-0*	*p-Toluidine*
U222	*636-21-5*	*o-Toluidine hydrochloride*
U389	*2303-17-5*	*Triallate*
U011	*61-82-5*	*1H-1,2,4-Triazol-3-amine*
U227	*79-00-5*	*1,1,2-Trichloroethane*
U228	*79-01-6*	*Trichloroethylene*
See F027	*95-95-4*	*2,4,5-Trichlorophenol*
See F027	*88-06-2*	*2,4,6-Trichlorophenol*
U404	*121-44-8*	*Triethylamine*
U234	*99-35-4*	*1,3,5-Trinitrobenzene (R,T)*
U182	*123-63-7*	*1,3,5-Trioxane, 2,4,6-trimethyl-*
U121	*75-69-4*	*Trichloromonofluoromethane*
U235	*126-72-7*	*Tris(2,3-dibromopropyl) phosphate*
U236	*72-57-1*	*Trypan blue*
U237	*66-75-1*	*Uracil mustard*
U176	*759-73-9*	*Urea, N-ethyl-N-nitroso-*
U177	*684-93-5*	*Urea, N-methyl-N-nitroso-*
U043	*75-01-4*	*Vinyl chloride*
U248	*[1]81-81-2*	*Warfarin, and salts, when present at concentrations of 10 percent or less*
U239	*1330-20-7*	*Xylene (I)*
U200	*50-55-5*	*Yohimban-16-carboxylic acid,11,17-dimethoxy-18- [(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta, 16beta,17alpha,18beta,20alpha)-*
U407	*14324-55-1*	*Zinc, bis(diethylcarbamodithioato-S,S')-*
U249	*1314-84-7*	*Zinc phosphide Zn_3P_2, when present at concentrations of 10 percent or less*

[1] CAS Number given for parent compound only.

G. Constituents that Serve as a Basis for Listing Hazardous Waste. Table 6 lists constituents that serve as a basis for listing

H. hazardous waste

Table 6.

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number F001
Tetrachloroethylene *methylene chloride* *trichloroethylene* *1,1,1-trichloroethane* *carbon tetrachloride* *chlorinated fluorocarbons*
EPA Hazardous Waste Number F002
Tetrachloroethylene *methylene chloride* *trichloroethylene* *1,1,1-trichloroethane* *1,1,2-trichloroethane* *chlorobenzene* *1,1,2-trichloro-1,2,2-trifluoroethane* *ortho-dichlorobenzene* *trichlorofluoromethane*
EPA Hazardous Waste Number F003
N.A.
EPA Hazardous Waste Number F004
Cresols and cresylic acid *nitrobenzene*
EPA Hazardous Waste Number F005
Toluene *methyl ethyl ketone* *carbon disulfide* *isobutanol* *pyridine* *2-ethoxyethanol*
benzene *2-nitropropane*
EPA Hazardous Waste Number F006
Cadmium *hexavalent chromium* *nickel* *cyanide (complexed)*

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number F007
Cyanide (salts)
EPA Hazardous Waste Number F008
Cyanide (salts)
EPA Hazardous Waste Number F009
Cyanide (salts)
EPA Hazardous Waste Number F010
Cyanide (salts)
EPA Hazardous Waste Number F011
Cyanide (salts)
EPA Hazardous Waste Number F012
Cyanide (complexed)
EPA Hazardous Waste Number F019
Hexavalent chromium *cyanide (complexed)*
EPA Hazardous Waste Number F020
Tetra- and pentachlorodibenzo-p-dioxins *tetra and pentachlorodibenzofurans* *Tri- and tetrachlorophenols and their* *chlorophenoxy derivative acids* *esters* *ethers* *amine and other salts*
EPA Hazardous Waste Number F021
Penta- and hexachlorodibenzo-p-dioxins *penta- and hexachlorodibenzofurans* *pentachlorophenol and its derivatives*
EPA Hazardous Waste Number F022
Tetra-, penta-, and hexachlorodibenzo-p-dioxins *tetra-, penta-, and hexachlorodibenzofurans*
EPA Hazardous Waste Number F023
Tetra- and pentachlorodibenzo-p-dioxins
tetra-, and pentachlorodibenzofurans *Tri- and tetrachlorophenols and their* *chlorophenoxy derivative acids* *ester* *ethers* *amine and other salts*

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number F024
Chloromethane
dichloromethane
trichloromethane
carbon tetrachloride
chloroethylene
1,1-dichloroethane
1,2-dichloroethane
trans-1-2-dichloroethylene
1,1-dichloroethylene
1,1,1-trichloroethane
1,1,2-trichloroethane
trichloroethylene
1,1,1,2-tetra-chloroethane
1,1,2,2-tetrachloroethane
tetrachloroethylene
pentachloroethane
hexachloroethane
allyl chloride (3-chloropropene)
dichloropropane
dichloropropene
2-chloro-1,3-butadiene
hexachloro-1,3-butadiene
hexachlorocyclopentadiene
hexachlorocyclohexane
benzene
chlorobenzene
dichlorobenzenes
1,2,4-trichlorobenzene
tetrachlorobenzene
pentachlorobenzene
hexachlorobenzene
toluene
naphthalene
EPA Hazardous Waste Number F025
Chloromethane
Dichloromethane
Trichloromethane
Carbon tetrachloride
Chloroethylene

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

1,1-Dichloroethane
1,2-Dichloroethane
trans-1,2-Dichloroethylene
1,1-Dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Pentachloroethane
Hexachloroethane
Allyl chloride (3-Chloropropene)
Dichloropropane
Dichloropropene
2-Chloro-1,3-butadiene
Hexachloro-1,3-butadiene
Hexachlorocyclopentadiene
Benzene
Chlorobenzene
Dichlorobenzene
1,2,4-Trichlorobenzene
Tetrachlorobenzene
Pentachlorobenzene
Hexachlorobenzene
Toluene
Naphthalene
EPA Hazardous Waste Number F026
Tetra-, penta-, and hexachlorodibenzo-p-dioxins
tetra-, penta-, and hexachlorodibenzofurans
EPA Hazardous Waste Number F027
Tetra-, penta-, and hexachlorodibenzo-p-dioxins
tetra-, penta-,and hexachlorodibenzofurans
tri-, tetra-, and pentachlorophenols and their
chlorophenoxy derivative acids
esters
ethers
amine and other salts

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number F028
Tetra-, penta-, and hexachlorodibenzo-p-dioxins *tetra-, penta-, and hexachlorodibenzofurans* *tri-, tetra-, and pentachlorophenols and their* *chlorophenoxy derivative acids* *esters* *ethers* *amine and other salts*
EPA Hazardous Waste Number F032
Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h) *-anthracene,indeno(1,2,3-cd)pyrene, pentachlorophenol,* *arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo* *-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans*
EPA Hazardous Waste Number F034
Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, *dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene,* *arsenic, chromium*
EPA Hazardous Waste Number F035
Arsenic, chromium, lead
EPA Hazardous Waste Number F037
Benzene, benzo(a)pyrene, chrysene, lead, chromium
EPA Hazardous Waste Number F038
Benzene, benzo(a)pyrene chrysene, lead, chromium
EPA Hazardous Waste Number F039
All constituents for which treatment standards are specified *for multi-source leachate (wastewaters and nonwastewaters)* *under LAC 33:V.2247.Table 2*
EPA Hazardous Waste Number K001
Pentachlorophenol *phenol* *2-chlorophenol* *p-chloro-,-cresol* *2,4-dimethylphenyl* *2,4-dinitrophenol*

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

trichlorophenols *tetrachlorophenols* *2,4-dinitrophenol* *creosote* *chrysene* *naphthalene* *fluoranthene* *benzo(b)fluoranthene* *benzo(a)pyrene* *indeno(1,2,3-cd)pyrene* *benz(a)anthracene* *dibenz(a)anthracene* *acenaphthalene*
EPA Hazardous Waste Number K002
Hexavalent chromium *lead*
EPA Hazardous Waste Number K003
Hexavalent chromium *lead*
EPA Hazardous Waste Number K004
Hexavalent chromium
EPA Hazardous Waste Number K005
Hexavalent chromium *lead*
EPA Hazardous Waste Number K006
Hexavalent chromium
EPA Hazardous Waste Number K007
Cyanide (complexed) *hexavalent chromium*
EPA Hazardous Waste Number K008
Hexavalent chromium
EPA Hazardous Waste Number K009
Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid
EPA Hazardous Waste Number K010
Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde
EPA Hazardous Waste Number K011
Acrylonitrile, acetonitrile, hydrocyanic acid

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K013
Hydrocyanic acid, acrylonitrile, acetonitrile
EPA Hazardous Waste Number K014
Acetonitrile, acrylamide
EPA Hazardous Waste Number K015
Benzyl chloride, chlorobenzene, toluene, benzotrichloride
EPA Hazardous Waste Number K016
Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene
EPA Hazardous Waste Number K017
Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-Chloroethyl) ethers], trichloropropane, dichloropropanols
EPA Hazardous Waste Number K018
1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
EPA Hazardous Waste Number K019
Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
EPA Hazardous Waste Number K020
Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane) trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
EPA Hazardous Waste Number K021
Antimony, carbon tetrachloride, chloroform
EPA Hazardous Waste Number K022
Phenol, tars (polycyclic aromatic hydrocarbons)
EPA Hazardous Waste Number K023
Phthalic anhydride, maleic anhydride
EPA Hazardous Waste Number K024
Phthalic anhydride, 1,4-naphthoquinone

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K025
Meta-dinitrobenzene, 2,4-dinitrotoluene
EPA Hazardous Waste Number K026
Paraldehyde, pyridines, 2-picoline
EPA Hazardous Waste Number K027
Toluene diisocyanate, toluene-2,4-diamine
EPA Hazardous Waste Number K028
1,1,1-trichloroethane, vinyl chloride
EPA Hazardous Waste Number K029
1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform
EPA Hazardous Waste Number K030
Hexachlorobenzene, Hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride
EPA Hazardous Waste Number K031
Arsenic
EPA Hazardous Waste Number K032
Hexachlorocyclopentadiene
EPA Hazardous Waste Number K033
Hexachlorocyclopentadiene
EPA Hazardous Waste Number K034
Hexachlorocyclopentadiene
EPA Hazardous Waste Number K035
Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
EPA Hazardous Waste Number K036
Toluene, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K037
Toluene, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K038
Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K039
Phosphorodithioic and phosphorothioic acid esters

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K040
Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K041
Toxaphene
EPA Hazardous Waste Number K042
Hexachlorobenzene *ortho-dichlorobenzene*
EPA Hazardous Waste Number K043
2,4-dichlorophenol, 2.6-dichlorophenol, 2,4,6-trichlorophenol
EPA Hazardous Waste Number K044
N.A.
EPA Hazardous Waste Number K045
N.A.
EPA Hazardous Waste Number K046
Lead
EPA Hazardous Waste Number K047
N.A.
EPA Hazardous Waste Number K048
Hexavalent chromium, lead
EPA Hazardous Waste Number K049
Hexavalent chromium, lead
EPA Hazardous Waste Number K050
Hexavalent chromium
EPA Hazardous Waste Number K051
Hexavalent chromium, lead
EPA Hazardous Waste Number K052
Lead
EPA Hazardous Waste Number K060
Cyanide, napthalene, phenolic compounds, arsenic
EPA Hazardous Waste Number K061
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K062
Hexavalent chromium, lead
EPA Hazardous Waste Number K064
Lead, cadmium
EPA Hazardous Waste Number K065
Do

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K066
Do
EPA Hazardous Waste Number K069
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K071
Mercury
EPA Hazardous Waste Number K073
Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane
EPA Hazardous Waste Number K083
Aniline, diphenylamine, nitrobenzene, phenylenediamine
EPA Hazardous Waste Number K084
Arsenic
EPA Hazardous Waste Number K085
Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride
EPA Hazardous Waste Number K086
Lead, hexavalent chromium
EPA Hazardous Waste Number K087
Phenol, naphthalene
EPA Hazardous Waste Number K088
Cyanide (complexes)
EPA Hazardous Waste Number K090
Chromium
EPA Hazardous Waste Number K091
Do
EPA Hazardous Waste Number K093
Phthalic anhydride, maleic anhydride
EPA Hazardous Waste Number K094
Phthalic anhydride
EPA Hazardous Waste Number K095
1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane
EPA Hazardous Waste Number K096
1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K097
Chlordane, heptachlor
EPA Hazardous Waste Number K098
Toxaphene
EPA Hazardous Waste Number K099
2,4-dichlorophenol, 2,4,6-trichlorophenol
EPA Hazardous Waste Number K100
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K101
Arsenic
EPA Hazardous Waste Number K102
Arsenic
EPA Hazardous Waste Number K103
Aniline, nitrobenzene, phenylenediamine
EPA Hazardous Waste Number K104
Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine
EPA Hazardous Waste Number K105
Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol
EPA Hazardous Waste Number K106
Mercury
EPA Hazardous Waste Number K107
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K108
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K109
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K110
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K111
2,4-Dinitrotoluene
EPA Hazardous Waste Number K112
2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
EPA Hazardous Waste Number K113
2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
EPA Hazardous Waste Number K114
2,4-Toluenediamine, o-toluidine, p-toluidine
EPA Hazardous Waste Number K115
2,4-Toluenediamine

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K116
Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
EPA Hazardous Waste Number K117
Ethylene dibromide
EPA Hazardous Waste Number K118
Ethylene dibromide
EPA Hazardous Waste Number K123
Ethylene thiourea
EPA Hazardous Waste Number K124
Ethylene thiourea
EPA Hazardous Waste Number K125
Ethylene thiourea
EPA Hazardous Waste Number K126
Ethylene thiourea
EPA Hazardous Waste Number K131
Dimethyl sulfate, methyl bromide
EPA Hazardous Waste Number K132
Methyl Bromide
EPA Hazardous Waste Number K136
Ethylene dibromide
EPA Hazardous Waste Number K141
Benzene *benzo(a)anthracene* *benzo(a)pyrene* *benzo(b)fluoranthene* *benzo(k)fluoranthene* *dibenz(a,h)anthracene* *indeno(1,2,3-cd)pyrene*
EPA Hazardous Waste Number K142
Benzene *benz(a)anthracene* *benzo(a)pyrene* *benzo(b)fluoranthene* *benzo(k)fluoranthene* *dibenz(a,h)anthracene* *indeno(1,2,3-cd)pyrene*

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K143
Benzene
benz(a)anthracene
benzo(b)fluoranthene
benzo(k)fluoranthene
EPA Hazardous Waste Number K144
Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
EPA Hazardous Waste Number K145
Benzene
benz(a)anthracene
benzo(a)pyrene
dibenz(a,h)anthracene
naphthalene
EPA Hazardous Waste Number K147
Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K148
Benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K149
Benzotrichloride
benzyl chloride
chloroform
chloromethane
chlorobenzene

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

1,4-dichlorobenzene
hexachlorobenzene
pentachlorobenzene
1,2,4,5-tetrachlorobenzene
toluene
EPA Hazardous Waste Number K150
Carbon tetrachloride
chloroform
chloromethane
1,4-dichlorobenzene
hexachlorobenzene
pentachlorobenzene
1,2,4,5-tetrachlorobenzene
1,1,2,2-tetrachloroethane
tetrachloroethylene
1,2,4-trichlorobenzene
EPA Hazardous Waste Number K151
Benzene
carbon tetrachloride
chloroform
hexachlorobenzene
pentachlorobenzene
toluene
1,2,4,5-tetrachlorobenzene
EPA Hazardous Waste Number K156
benomyl
carbaryl
carbendazim
carbofuran
carbosulfan
formaldehyde
methylene chloride
triethylamine
EPA Hazardous Waste Number K157
Carbon tetrachloride
formaldehyde
methyl chloride
methylene chloride
pyridine
triethylamine

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number K158
benomyl *carbendazim* *carbofuran* *carbosulfan* *chloroform* *methylene chloride*
EPA Hazardous Waste Number K159
benzene *butylate* *EPTC* *molinate* *pebulate* *vernolate*
EPA Hazardous Waste Number K161
antimony *arsenic* *metam-sodium* *Ziram*
EPA Hazardous Waste Number K169
Benzene
EPA Hazardous Waste Number K170
Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a)anthracene, benzo (b)fluoranthene *benzo(k)fluoranthene, 3-methylcholanthrene* *7, 12-dimethylbenz(a)anthracene*
EPA Hazardous Waste Number K171
Benzene, arsenic
EPA Hazardous Waste Number K172
Benzene, arsenic
EPA Hazardous Waste Number K174
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1.2,3,4,6,7,8-HpCDD)
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1.2,3,4,7,8,9-HpCDF)
HxCDDs (All Hexachlorodibenzo-p-dioxins)
HxCDFs (All Hexachlorodibenzofurans)
PeCDDs (All Pentachlorodibenzo-p-dioxins)

Table of Constituents that Serve as a Basis for Listing Hazardous Waste

OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran)
PeCDFs (All Pentachlorodibenzofurans)
TCDDs (All Tetrachlorodibenzo-p-dioxins)
TCDFs (All Tetrachlorodibenzofurans)
EPA Hazardous Waste Number K175
Mercury
EPA Hazardous Waste Number K176
Arsenic
Lead
EPA Hazardous Waste Number K177
Antimony
EPA Hazardous Waste Number K178
Thallium

4903. Category II Hazardous Wastes

A. Category II hazardous wastes are wastes designated as hazardous based on classical analytical procedures (see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, for guidance on the procedures). There are four hazardous waste categories for wastes not otherwise characterized: ignitability, corrosivity, reactivity, and toxicity. LAC 33:V.Subpart 1 applies to those materials that exhibit the characteristics of ignitability, corrosivity, reactivity, and/or toxicity.

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

B. Ignitability. A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number D001. A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

1. It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has flash point less than 60□C (140□F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, as incorporated by reference at LAC 33:V.110, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78, as incorporated by reference at LAC 33:V.110, or as determined by an equivalent test method approved by the administrative authority under procedures set forth in LAC 33:V.105.H and I.

2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

3. It is an ignitable compressed gas as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101 and as determined by the test methods described in that regulation or equivalent test methods LAC 33:V.105.I.

4. It is an oxidizer as defined in LDPS Regulations LAC 33:V.Subpart 2.Chapter 101.

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

C. Corrosivity. A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number D002. A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

1. It is aqueous and has a pH less than or equal to two or greater than or equal to 12.5, as determined by a pH meter using Method 9040 described in "Test

Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.

2. *It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in National Association of Corrosion Engineers (NACE) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.*

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

D. *Reactivity. A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number D003. A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:*

1. *It is normally unstable and readily undergoes violent change without detonating.*
2. *It reacts violently with water.*
3. *It forms potentially explosive mixtures with water.*
4. *When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.*
5. *It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2.0 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.*
6. *It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.*
7. *It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.*
8. *It is a forbidden explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101, or a Class A explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101 or a Class B explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101.*

E. *Toxicity Characteristic*

1. *A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, Method 1311 described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, the extract from a representative sample of the waste contains any of the contaminants listed in Paragraph E.2.Table 5 of this Section at the concentration equal to or greater than the respective value given*

in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purposes of this Section.

2. *A solid waste that exhibits the characteristic of toxicity, but is not listed as a hazardous waste in LAC 33:V.4901, has the Hazardous Waste Number specified in Table 5 that corresponds to the toxic contaminant causing it to be hazardous.*

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

Table 5. Maximum Concentrations of Contaminants for the Toxicity Characteristic

EPA HW Number[1]	Contaminant	CAS Number[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[4]200.0
D024	m-Cresol	108-39-4	[4]200.0
D025	p-Cresol	106-44-5	[4]200.0
D026	Cresol	--------	[4]200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichlorethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[3]0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[3]0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[5]5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7

EPA HW Number[1]	Contaminant	CAS Number[2]	Regulatory Level (mg/L)
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2
[1] Hazardous Waste Number			
[2] Chemical Abstracts Service Number			
[3] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.			
[4] If o-, m- and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.			

F. A hazardous waste that is listed in LAC 33:V.4901 and/or is identified by one or more of the characteristics in this Section is assigned every EPA Hazardous Waste Number that is applicable as set forth in LAC 33:V.Chapter 49. These waste code numbers must be used in complying with all applicable notification, recordkeeping, and reporting requirements.

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

4905. Exclusions for Wastewaters

Editor's Note: The text in Section 4905 has been moved to LAC 33:V.109.Hazardous Waste.2.d.

4907. Criteria for Listing Hazardous Waste

A. The administrative authority shall list a solid waste as a hazardous waste upon determining that the solid waste meets one of the following criteria.

1. It exhibits any of the characteristics of hazardous waste identified in LAC 33:V.4903.

2. It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute or Acutely Hazardous Waste.)

3. It contains any of the toxic constituents listed in LAC 33:V.3105.Table 1, and after considering the following factors, the administrative authority concludes that the waste is capable of posing a substantial present or potential hazard to human health or the

environment when improperly treated, stored, transported, or disposed of, or otherwise managed:

a. the nature of the toxicity presented by the constituent;

b. the concentration of the constituent in the waste;

c. the potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in LAC 33:V.4907.A.3.g;

d. the persistence of the constituent or any toxic degradation product of the constituent;

e. the potential for the constituent or any toxic degradation product of the constituent to degrade into nonharmful constituents and the rate of degradation;

f. the degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems;

g. the plausible types of improper management to which the waste could be subjected;

h. the quantities of the waste generated at individual generation sites or on a regional or national basis;

i. the nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent;

j. action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent; and

k. such other factors as may be appropriate.

Substances will be listed in LAC 33:V.3105.Table 1 only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms. (Wastes listed in accordance with these criteria will be designated "Toxic" wastes.)

B. The administrative authority may list classes or types of solid waste as hazardous waste if he or she has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in LAC 33:V.109.

C. The administrative authority shall use the criteria for listing specified in this Chapter to establish the exclusion limits referred to in LAC 33:V.108.C.

To the extent that these regulations apply in CH (CO), the facility will ensure compliance.

4909. Comparable/Syngas Fuel Exclusion

A. Wastes that meet the following comparable/syngas fuel requirements are not solid wastes.

B. Comparable Fuel Specifications

1. Physical Specifications

a. *Heating Value. The heating value must exceed 5,000 BTU/lbs. (11,500 J/g).*

b. *Viscosity. The viscosity must not exceed: 50 cs, as-fired.*

2. *Constituent Specifications. For compounds listed in Table 7 of this Section the specification levels and, where nondetect is the specification, minimum required detection limits are listed in Table 7 of this Section.*

C. *Synthesis Gas Fuel Specification. Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must:*

1. *have a minimum BTU value of 100 BTU/Scf;*

2. *contain less than one ppmv of total halogen;*

3. *contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N_2);*

4. *contain less than 200 ppmv of hydrogen sulfide; and*

5. *contain less than one ppmv of each hazardous constituent in the target list of LAC 33:V.Chapter 31.Table 1.*

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	*CAS Number*	*Composite Value (mg/kg)*	*Heating Value (BTU/lb)*	*Concentration Limit (mg/kg at required 10,000 BTU/lb)*	*Minimum Required Detection Limit (mg/kg)*
Total Nitrogen as N	*NA*	*9000*	*18400*	*4900*	
Total Halogens as Cl	*NA*	*1000*	*18400*	*540*	
Total Organic Halogens as Cl	*NA*			*25 or individual halogenated organics listed below*	
Polychlorinated biphenyls, total [Arocolors, total]	*1336-36-3*	*Nondetect*		*Nondetect*	*1.4*
Cyanide, total	*57-12-5*	*Nondetect*		*Nondetect*	*1.0*
Metals:					
Antimony, total	*7440-36-0*	*Nondetect*		*12*	
Arsenic, total	*7440-38-2*	*Nondetect*		*0.23*	
Barium, total	*7440-39-3*	*Nondetect*		*23*	
Beryllium, total	*7440-41-7*	*Nondetect*		*1.2*	
Cadmium, total	*7440-43-9*		*Nondetect*		*1.2*
Chromium, total	*7440-47-3*	*Nondetect*		*2.3*	
Cobalt	*7440-48-4*	*Nondetect*		*4.6*	
Lead, total	*7439-92-1*	*57*	*18100*	*31*	
Manganese	*7439-96-5*	*Nondetect*		*1.2*	
Mercury, total	*7439-97-6*	*Nondetect*		*0.25*	
Nickel, total	*7440-02-0*	*106*	*18400*	*58*	
Selenium, total	*7782-49-2*	*Nondetect*		*0.23*	
Silver, total	*7440-22-4*	*Nondetect*		*2.3*	

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Thallium, total	7440-28-0	Nondetect		23	
Hydrocarbons:					
Benzo[a]anthracene	56-55-3	Nondetect		2400	
Benzene	71-43-2	8000	19600	4100	
Benzo[b]fluoranthene	205-99-2	Nondetect		2400	
Benzo[k]fluoranthene	207-08-9	Nondetect		2400	
Benzo[a]pyrene	50-32-8	Nondetect		2400	
Chrysene	218-01-9	Nondetect		2400	
Dibenzo[a,h]anthracene	53-70-3	Nondetect		2400	
7,12-Dimethylbenz[a] anthracene	57-97-6	Nondetect		2400	
Fluoranthene	206-44-0	Nondetect		2400	
Indeno(1,2,3-cd)pyrene	193-39-5	Nondetect		2400	
3-Methylcholanthrene	56-49-5	Nondetect		2400	
Naphthalene	91-20-3	6200	19400	3200	
Toluene	108-88-3	69000	19400	36000	
Oxygenates:					
Acetophenone	98-86-2	Nondetect		2400	
Acrolein	107-02-8	Nondetect		39	
Allyl alcohol	107-18-6	Nondetect		30	
Bis(2-ethylhexyl)phthalate [Di-2- ethylhexyl phthalate]	117-81-7	Nondetect		2400	
Butyl benzyl phthalate	85-68-7	Nondetect		2400	
o-Cresol [2-Methyl phenol]	95-48-7	Nondetect		2400	
m-Cresol [3-Methyl phenol]	108-39-4	Nondetect		2400	
p-Cresol [4-Methyl phenol]	106-44-5	Nondetect		2400	
Di-n-butyl phthalate	84-74-2	Nondetect		2400	

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Diethyl phthalate	84-66-2	Nondetect		2400	
2,4-Dimethylphenol	105-67-9	Nondetect		2400	
Dimethyl phthalate	131-11-3	Nondetect		2400	
Di-n-octyl phthalate	117-84-0	Nondetect		2400	
Endothall	145-73-3	Nondetect		100	
Ethyl methacrylate	97-63-2	Nondetect		39	
2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	Nondetect		100	
Isobutyl alcohol	78-83-1	Nondetect		39	
Isosafrole	120-58-1	Nondetect		2400	
Methyl ethyl ketone [2-Butanone]	78-93-3	Nondetect		39	
Methyl methacrylate	80-62-6	Nondetect		39	
1,4-Naphthoquinone	130-15-4	Nondetect		2400	
Phenol	108-95-2	Nondetect		2400	
Propargyl alcohol [2-Propyn-1-ol]	107-19-7	Nondetect		30	
Safrole	94-59-7	Nondetect		2400	
Sulfonated Organics:					
Carbon disulfide	75-15-0	Nondetect		Nondetect	39
Disulfoton	298-04-4	Nondetect		Nondetect	2400
Ethyl methanesulfonate	62-50-0	Nondetect		Nondetect	2400
Methyl methanesulfonate	66-27-3	Nondetect		Nondetect	2400
Phorate	298-02-2	Nondetect		Nondetect	2400
1,3-Propane sultone	1120-71-4	Nondetect		Nondetect	100
Tetraethyldithiopyrophosphate [Sulfotepp]	3689-24-5	Nondetect		Nondetect	2400

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Thiophenol [Benzenethiol]	108-98-5	Nondetect		Nondetect	30
O,O,O-Triethyl phosphorothioate	126-68-1	Nondetect		Nondetect	2400
Nitrogenated Organics:					
Acetonitrile [Methyl cyanide]	75-05-8	Nondetect		Nondetect	39
2-Acetylaminofluorene [2-AAF]	53-96-3	Nondetect		Nondetect	2400
Acrylonitrile	107-13-1	Nondetect		Nondetect	39
4-Aminobiphenyl	92-67-1	Nondetect		Nondetect	2400
4-Aminopyridine	504-24-5	Nondetect		Nondetect	100
Aniline	62-53-3	Nondetect		Nondetect	2400
Benzidine	92-87-5	Nondetect		Nondetect	2400
Dibenz[a,j]acridine	224-42-0	Nondetect		Nondetect	2400
O,O-Diethyl O-pyrazinyl phosphoro-thioate [Thionazin]	297-97-2	Nondetect		Nondetect	2400
Dimethoate	60-51-5	Nondetect		Nondetect	2400
p-(Dimethylamino)azobenzene [4-Dimethylaminoazobenzene]	60-11-7	Nondetect		Nondetect	2400
3,3'-Dimethylbenzidine	119-93-7	Nondetect		Nondetect	2400
α,α-Dimethylphenethylamine	122-09-8	Nondetect		Nondetect	2400
3,3'-Dimethoxybenzidine	119-90-4	Nondetect		Nondetect	100
1,3-Dinitrobenzene [m-Dinitrobenzene]	99-65-0	Nondetect		Nondetect	2400
4,6-Dinitro-o-cresol	534-52-1	Nondetect		Nondetect	2400
2,4-Dinitrophenol	51-28-5	Nondetect		Nondetect	2400
2,4-Dinitrotoluene	121-14-2	Nondetect		Nondetect	2400
2,6-Dinitrotoluene	606-20-2	Nondetect		Nondetect	2400

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Dinoseb [2-sec-Butyl-4,6-dinitrophenol]	88-85-7	Nondetect		Nondetect	2400
Diphenylamine	122-39-4	Nondetect		Nondetect	2400
Ethyl carbamate [Urethane]	51-79-6	Nondetect		Nondetect	100
Ethylenethiourea (2-Imidazolidinethione)	96-45-7	Nondetect		Nondetect	110
Famphur	52-85-7	Nondetect		Nondetect	2400
Methacrylonitrile	126-98-7	Nondetect		Nondetect	39
Methapyrilene	91-80-5	Nondetect		Nondetect	2400
Methomyl	16752-77-5	Nondetect		Nondetect	57
2-Methyllactonitrile [Acetone cyanohydrin]	75-86-5	Nondetect		Nondetect	100
Methyl parathion	298-00-0	Nondetect		Nondetect	2400
MNNG (N-Metyl-N-nitroso-N'-nitroguanidine)	70-25-7	Nondetect		Nondetect	110
1-Naphthylamine, [α-Naphthylamine]	134-32-7	Nondetect		Nondetect	2400
2-Naphthylamine, [β-Naphthylamine]	91-59-8	Nondetect		Nondetect	2400
Nicotine	54-11-5	Nondetect		Nondetect	100
4-Nitroaniline, [p-Nitroaniline]	100-01-6	Nondetect		Nondetect	2400
Nitrobenzene	98-95-3	Nondetect		Nondetect	2400
p-Nitrophenol, [p-Nitrophenol]	100-02-7	Nondetect		Nondetect	2400
5-Nitro-o-toluidine	99-55-8	Nondetect		Nondetect	2400
N-Nitrosodi-n-butylamine	924-16-3	Nondetect		Nondetect	2400
N-Nitrosodiethylamine	55-18-5	Nondetect		Nondetect	2400
N-Nitrosodiphenylamine, [Diphenylnitrosamine]	86-30-6	Nondetect		Nondetect	2400

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
N-Nitroso-N-methylethylamine	10595-95-6	Nondetect		Nondetect	2400
N-Nitrosomorpholine	59-89-2	Nondetect		Nondetect	2400
N-Nitrosopiperidine	100-75-4	Nondetect		Nondetect	2400
N-Nitrosopyrrolidine	930-55-2	Nondetect		Nondetect	2400
2-Nitropropane	79-46-9	Nondetect		Nondetect	30
Parathion	56-38-2	Nondetect		Nondetect	2400
Phenacetin	62-44-2	Nondetect		Nondetect	2400
1,4-Phenylenediamine, [p-Phenylenediamine]	106-50-3	Nondetect		Nondetect	2400
N-Phenylthiourea	103-85-5	Nondetect		Nondetect	57
2-Picoline [alpha-Picoline]	109-06-8	Nondetect		Nondetect	2400
Propylthioracil [6-Propyl-2-thiouracil]	51-52-5	Nondetect		Nondetect	100
Pyridine	110-86-1	Nondetect		Nondetect	2400
Strychnine	57-24-9	Nondetect		Nondetect	100
Thioacetamide	62-55-5	Nondetect		Nondetect	57
Thiofanox	39196-18-4	Nondetect		Nondetect	100
Thiourea	62-56-6	Nondetect		Nondetect	57
Toluene-2,4-diamine [2,4-Diaminotoluene]	95-80-7	Nondetect		Nondetect	57
Toluene-2,6-diamine [2,6-Diaminotoluene]	823-40-5	Nondetect		Nondetect	57
o-Toluidine	95-53-4	Nondetect		Nondetect	2400
p-Toluidine	106-49-0	Nondetect		Nondetect	100
1,3,5-Trinitrobenzene, [sym-Trinitrobenzene]	99-35-4	Nondetect		Nondetect	2400
Halogenated Organics:					
Allyl chloride	107-05-1	Nondetect		Nondetect	39

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Aramite	140-57-8	Nondetect		Nondetect	2400
Benzal chloride [Dichloromethyl benzene]	98-87-3	Nondetect		Nondetect	100
Benzyl chloride	100-44-77	Nondetect		Nondetect	100
Bis(2-chloroethyl)ether [Dichloroethyl ether]	111-44-4	Nondetect		Nondetect	2400
Bromoform [Tribromomethane]	75-25-2	Nondetect		Nondetect	39
Bromomethane [Methyl bromide]	74-83-9	Nondetect		Nondetect	39
4-Bromophenyl phenyl ether [p-Bromo diphenyl ether]	101-55-3	Nondetect		Nondetect	2400
Carbon tetrachloride	56-23-5	Nondetect		Nondetect	39
Chlordane	57-74-9	Nondetect		Nondetect	14
p-Chloroaniline	106-47-8	Nondetect		Nondetect	2400
Chlorobenzene	108-90-7	Nondetect		Nondetect	39
Chlorobenzilate	510-15-6	Nondetect		Nondetect	2400
p-Chloro-m-cresol	59-50-7	Nondetect		Nondetect	2400
2-Chloroethyl vinyl ether	110-75-8	Nondetect		Nondetect	39
Chloroform	67-66-3	Nondetect		Nondetect	39
Chloromethane [Methyl chloride]	74-87-3	Nondetect		Nondetect	39
2-Chloronaphthalene [beta-Chloronaphthalene]	91-58-7	Nondetect		Nondetect	2400
2-Chlorophenol [o-Chlorophenol]	95-57-8	Nondetect		Nondetect	2400
Chloroprene [2-Chloro-1,3-butadiene]	1126-99-8	Nondetect		Nondetect	39
2,4-D [2,4-Dichlorophenoxyacetic acid]	94-75-7	Nondetect		Nondetect	7.0
Diallate	2303-16-4	Nondetect		Nondetect	2400

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
1,2-Dibromo-3-chloropropane	96-12-8	Nondetect		Nondetect	39
1,2-Dichlorobenzene [o-Dichlorobenzene]	95-50-1	Nondetect		Nondetect	2400
1,3-Dichlorobenzene [m-Dichlorobenzene]	541-73-1	Nondetect		Nondetect	2400
1,4-Dichlorobenzene [p-Dichlorobenzene]	106-46-7	Nondetect		Nondetect	2400
3,3'-Dichlorobenzidine	91-94-1	Nondetect		Nondetect	2400
Dichlorodifluoromethane [CFC-12]	75-71-8	Nondetect		Nondetect	39
1,2-Dichloroethane [Ethylene dichloride]	107-06-2	Nondetect		Nondetect	39
1,1-Dichloroethylene [Vinylidene chloride]	75-35-4	Nondetect		Nondetect	39
Dichloromethoxy ethane [Bis(2-chloroethoxy)methane	111-91-1	Nondetect		Nondetect	2400
2,4-Dichlorophenol	120-83-2	Nondetect		Nondetect	2400
2,6-Dichlorophenol	87-65-0	Nondetect		Nondetect	2400
1,2-Dichloropropane [Propylene dichloride]	78-87-5	Nondetect		Nondetect	39
cis-1,3-Dichloropropylene	10061-01-5	Nondetect		Nondetect	39
trans-1,3-Dichloropropylene	10061-02-6	Nondetect		Nondetect	39
1,3-Dichloro-2-propanol	96-23-1	Nondetect		Nondetect	30
Endosulfan I	959-98-8	Nondetect		Nondetect	1.4
Endosulfan II	33213-65-9	Nondetect		Nondetect	1.4
Endrin	72-20-8	Nondetect		Nondetect	1.4
Endrin aldehyde	7421-93-4	Nondetect		Nondetect	1.4
Endrin Ketone	53494-70-5	Nondetect		Nondetect	1.4
Epichlorohydrin [1-Chloro-2.3-epoxy propane]	106-89-8	Nondetect		Nondetect	30

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at required 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Ethylidene dichloride [1,1-Dichloroethane]	75-34-3	Nondetect		Nondetect	39
2-Fluoroacetamide	640-19-7	Nondetect		Nondetect	100
Heptachlor	76-44-8	Nondetect		Nondetect	1.4
Heptachlor epoxide	1024-57-3	Nondetect		Nondetect	2.8
Hexachlorobenzene	118-74-1	Nondetect		Nondetect	2400
Hexachloro-1,3-butadiene [Hexachlorobutadiene]	87-68-3	Nondetect		Nondetect	2400
Hexachlorocyclopentadiene	77-47-4	Nondetect		Nondetect	2400
Hexachloroethane	67-72-1	Nondetect		Nondetect	2400
Hexachlorophene	70-30-4	Nondetect		Nondetect	59000
Hexachloropropene [Hexachloropropylene]	1888-71-7	Nondetect		Nondetect	2400
Isodrin	465-73-6	Nondetect		Nondetect	2400
Kepone [Chlordecone]	143-50-0	Nondetect		Nondetect	4700
Lindane [gamma-Hexachlorocyclohexane] [gamma-BHC]	58-89-9	Nondetect		Nondetect	1.4
Methylene chloride [Dichloromethane]	75-09-2	Nondetect		Nondetect	39
4,4'-methylene-bis(2-chloroaniline)	101-14-4	Nondetect		Nondetect	100
Methyl iodide [Iodomethane]	74-88-4	Nondetect		Nondetect	39
Pentachlorobenzene	608-93-5	Nondetect		Nondetect	2400
Pentachloroethane	76-01-7	Nondetect		Nondetect	39
Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene]	82-68-8	Nondetect		Nondetect	2400
Pentachlorophenol	87-86-5	Nondetect		Nondetect	2400
Pronamide	23950-58-5	Nondetect		Nondetect	2400

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	*CAS Number*	*Composite Value (mg/kg)*	*Heating Value (BTU/lb)*	*Concentration Limit (mg/kg at required 10,000 BTU/lb)*	*Minimum Required Detection Limit (mg/kg)*
Silvex [2,4,5-Trichlorophenoxypropionic acid]	*93-72-1*	*Nondetect*		*Nondetect*	*7.0*
2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]	*1746-01-6*	*Nondetect*		*Nondetect*	*30*
1,2,4,5-Tetrachlorobenzene	*95-94-3*	*Nondetect*		*Nondetect*	*2400*
1,1,2,2-Tetrachloroethane	*79-34-5*	*Nondetect*		*Nondetect*	*39*
Tetrachloroethylene [Perchloroethylene]	*127-18-4*	*Nondetect*		*Nondetect*	*39*
2,3,4,6-Tetrachlorophenol	*58-90-2*	*Nondetect*		*Nondetect*	*2400*
1,2,4-Trichlorobenzene	*120-82-1*	*Nondetect*		*Nondetect*	*2400*
1,1,1-Trichloroethane [Methyl chloroform]	*71-55-6*	*Nondetect*		*Nondetect*	*39*
1,1,2-Trichloroethane [Vinyl trichloride]	*79-00-5*	*Nondetect*		*Nondetect*	*39*
Trichloroethylene	*79-01-6*	*Nondetect*		*Nondetect*	*39*
Trichlorofluoromethane [Trichlormonofluoromethane]	*75-69-4*	*Nondetect*		*Nondetect*	*39*
2,4,5-Trichlorophenol	*95-95-4*	*Nondetect*		*Nondetect*	*2400*
2,4,6-Trichlorophenol	*88-06-02*	*Nondetect*		*Nondetect*	*2400*
1,2,3-Trichloropropane	*96-18-4*	*Nondetect*		*Nondetect*	*39*
Vinyl Chloride	*75-01-4*	*Nondetect*		*Nondetect*	*39*

Notes:
NA – Not Applicable

D. Implementation. Waste that meets the comparable or syngas fuel specifications provided by Subsection B or C of this Section (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in Paragraph D.3 or 4 of this Section) is excluded from the definition of solid waste provided in Paragraphs D.1-13 of this Section.

1. Notices. For purposes of this Section, the person claiming and qualifying for the exclusion is called the comparable/syngas fuel generator and the person burning the comparable/syngas fuel is called the comparable/syngas fuel burner. The person who generates the comparable fuel or syngas fuel must claim and certify to the exclusion.

a. state RCRA and CAA Authorized States or Regional RCRA and CAA Administrative Authority in Unauthorized States

i. The generator must submit a one-time notice to the regional or state RCRA and CAA administrative authority in whose jurisdiction the exclusion is being claimed and where the comparable/syngas fuel will be burned certifying compliance with the conditions of the exclusion and providing documentation as required by Clause D.1.a.iii of this Section.

ii. If the generator is a company that generates comparable/syngas fuel at more than one facility, the generator shall specify at which sites the comparable/syngas fuel will be generated.

iii. A comparable/syngas fuel generator's notification to the administrative authority must contain the following items:

(a). the name, address, and EPA ID number of the person/facility claiming the exclusion;

(b). the applicable EPA hazardous waste codes for the hazardous waste;

(c). the name and address of the units meeting the requirements of Paragraph D.2 of this Section that will burn the comparable/syngas fuel; and

(d). the following statement signed and submitted by the person claiming the exclusion or his authorized representative:

"Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of LAC 33:V.4909 have been met for all waste identified in this notification. Copies of the records and information required at LAC 33:V.4909.D.10 are available at the comparable/syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. Public Notice. Prior to burning an excluded comparable/syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled "Notification of Burning a Comparable/Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

i. the name, address, and EPA ID number of the generating facility;

ii. the name and address of the unit(s) that will burn the comparable/syngas fuel;

iii. a brief, general description of the manufacturing, treatment, or other process comparable/syngas fuel;

iv. an estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and

v. the name and mailing address of the regional or state administrative authority to whom the claim was submitted.

2. Burning. The comparable/syngas fuel exclusion for fuels meeting the requirements of Subsection B or C and Paragraph D.1 of this Section applies only if the fuel is burned in the following units that also shall be subject to federal/state/local air emission requirements, including all applicable CAA MACT requirements:

a. industrial furnaces as defined in LAC 33:V.109;

b. boilers, as defined in LAC 33:V.109, that are further defined as follows:

i. industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

ii. utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

c. hazardous waste incinerators subject to regulation under LAC 33:V.Chapter 31 or Chapter 43.Subchapter N or applicable CAA MACT standards; or

d. gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

3. Blending to Meet the Viscosity Specification. A hazardous waste blended to meet the viscosity specification shall:

a. as generated and prior to any blending, manipulation, or processing meet the constituent and heating value specifications of Subparagraph B.1.a and Paragraph B.2 of this Section;

b. be blended at a facility that is subject to the applicable requirements of LAC 33:V.Chapters 9, 11, 15, 17, 18, 19, 21, 23, 24, 25, 27, 28, 29, 30, 32, 33, 35, 37, and 43; and

c. not violate the dilution prohibition of Paragraph D.6 of this Section.

4. Treatment to Meet the Comparable Fuel Exclusion Specifications

a. A hazardous waste may be treated to meet the exclusion specifications of Paragraphs B.1 and 2 of this Section provided the treatment:

i. destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

ii. is performed at a facility that is subject to the applicable requirements of LAC 33:V.Chapters 9, 11, 15, 17, 18, 19, 21, 23, 24, 25, 27, 28, 29, 30, 32, 33, 35, 37, and 43; and

iii. does not violate the dilution prohibition of Paragraph D.6 of this Section.

b. Residuals resulting from the treatment of a hazardous waste listed in LAC 33:V.4901 to generate a comparable fuel remain a hazardous waste.

5. Generation of a Syngas Fuel

a. A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of Subsection C of this Section provided the processing:

i. destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

ii. is performed at a facility that is subject to the applicable requirements of LAC 33:V.Chapters 9, 11, 15, 17, 18, 19, 21, 23, 24, 25, 27, 28, 29, 30, 32, 33, 35, 37, and 43 or is an exempt recycling unit in accordance with LAC 33:V.4115; and

iii. does not violate the dilution prohibition of Paragraph D.6 of this Section.

b. Residuals resulting from the treatment of a hazardous waste listed in LAC 33:V.4901 to generate a syngas fuel remain a hazardous waste.

6. Dilution Prohibition for Comparable and Syngas Fuels. No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifications of Subparagraph B.1.a or Paragraph B.2 or Subsection C of this Section.

7. Waste Analysis Plans. The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in LAC 33:V.110. The plan shall be followed and retained at the facility excluding the waste.

a. At a minimum, the plan must specify:

i. the parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;

ii. the test methods which will be used to test for these parameters;

iii. the sampling method which will be used to obtain a representative sample of the waste to be analyzed;

iv. the frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

v. if process knowledge is used in the waste determination, any information prepared by the generator in making such determination.

b. The waste analysis plan shall also contain records of the following:

i. the dates and times waste samples were obtained, and the dates the samples were analyzed;

ii. the names and qualifications of the person(s) who obtained the samples;

iii. a description of the temporal and spatial locations of the samples;

iv. the name and address of the laboratory facility at which analyses of the samples were performed;

v. a description of the analytical methods used, including any cleanup and sample preparation methods;

vi. all quantitative limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

vii. all laboratory results demonstrating that the exclusion specifications have been met for the waste; and

viii. all laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in Paragraph D.11 of this Section and also provides for the availability of the documentation to the claimant upon request.

c. Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of Subparagraph D.7.a of this Section to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

8. Comparable Fuel Sampling and Analysis

a. General. For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on LAC 33:V.Chapter 31.Table 1, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

i. a constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream, or constituents for which there is a treatment standard for the waste code in LAC 33:V.2223;

ii. a constituent detected in previous analysis of the waste;

iii. constituents introduced into the process that generates the waste; or

iv. constituents that are by-products or side reactions to the process that generates the waste.

[NOTE: Any claim under Paragraph D.8 of this Section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.]

b. For each waste for which the exclusion is claimed where the generator of the comparable/syngas fuel is not the original generator of the hazardous waste, the generator of the comparable/syngas fuel may not use process knowledge in accordance with Subparagraph D.8.a of this Section and must test to determine that all of the constituent specifications of Paragraph B.2 and Subsection C of this Section have been met.

c. The comparable/syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate that:

i. each constituent of concern is not present in the waste above the specification level at the 95 percent upper confidence limit around the mean; and

ii. the analysis could have detected the presence of the constituent at or below the specification level at the 95 percent upper confidence limit around the mean.

d. Nothing in this Section preempts, overrides, or otherwise negates the provision in LAC 33:V.1103 that requires any person who generates a solid waste to determine if that waste is a hazardous waste.

e. In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

f. The generator must conduct sampling and analysis in accordance with their waste analysis plan developed under Paragraph D.7 of this Section.

g. Syngas fuel and comparable fuel that have not been blended in order to meet the kinematic viscosity specifications shall be analyzed as generated.

h. If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall:

i. analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and

ii. after blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable/syngas fuel specifications.

i. Excluded comparable/syngas fuel must be retested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.

9. *Speculative Accumulation. Any persons handling a comparable/syngas fuel are subject to the speculative accumulation test under LAC 33:V.109.Solid Waste.2.c.*

10. *Records. The generator must maintain records of the following information on-site:*

a. *all information required to be submitted to the implementing authority as part of the notification of the claim:*

i. *the owner/operator name, address, and EPA facility ID number of the person claiming the exclusion;*

ii. *the applicable EPA hazardous waste codes for each hazardous waste excluded as a fuel; and*

iii. *the certification signed by the person claiming the exclusion or his authorized representative.*

b. *a brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;*

c. *an estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;*

d. *documentation for any claim that a constituent is not present in the hazardous waste as required under Subparagraph D.8.a of this Section;*

e. *the results of all analyses and all detection limits achieved as required under Paragraph D.8 of this Section;*

f. *if the excluded waste was generated through treatment or blending, documentation as required under Paragraph D.3 or 4 of this Section;*

g. *if the waste is to be shipped off-site, a certification from the burner as required under Paragraph D.12 of this Section;*

h. *a waste analysis plan and the results of the sampling and analysis that includes the following:*

i. *the dates and times waste samples were obtained, and the dates the samples were analyzed;*

ii. *the names and qualifications of the person(s) who obtained the samples;*

iii. *a description of the temporal and spatial locations of the samples;*

iv. *the name and address of the laboratory facility at which analyses of the samples were performed;*

v. *a description of the analytical methods used, including any cleanup and sample preparation methods;*

vi. *all quantitative limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;*

vii. all laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and

viii. all laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in Paragraph D.11 of this Section and also provides for the availability of the documentation to the claimant upon request; and

i. if the generator ships comparable/syngas fuel off-site for burning, the generator must retain for each shipment the following information on-site:

i. the name and address of the facility receiving the comparable/syngas fuel for burning;

ii. the quantity of comparable/syngas fuel shipped and delivered;

iii. the date of shipment or delivery;

iv. a cross-reference to the record of comparable/syngas fuel analysis or other information used to make the determination that the comparable/syngas fuel meets the specifications as required under Paragraph D.8 of this Section ; and

v. a one-time certification by the burner as required under Paragraph D.12 of this Section.

11. Records Retention. Records must be maintained for a period of three years. A generator must maintain a current waste analysis plan during that three-year period.

12. Burner Certification. Prior to submitting a notification to the state and regional administrative authority, a comparable/syngas fuel generator who intends to ship the fuel off-site for burning must obtain a one-time written, signed statement from the burner:

a. certifying that the comparable/syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under Paragraph D.2 of this Section;

b. identifying the name and address of the units that will burn the comparable/syngas fuel; and

c. certifying that the state in which the burner is located is authorized to exclude wastes as comparable/syngas fuel under the provisions of this Section.

13. Ineligible Waste Codes. Wastes that are listed because of presence of dioxins or furans, as set out in LAC 33:V.Chapter 49.Table 6, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full RCRA hazardous waste management requirements.

CH (CO) does not operate Syngas Fuel equipment. Therefore, this section does not apply.

CHAPTER 51

FEE SCHEDULES

5101. Applicability

A. The regulations in this Chapter apply to generators of hazardous waste as well as treaters, storers, and disposers of hazardous waste except as provided in LAC 33:V.1101 and LAC 33:V.1501.

5103. Scope and Purpose

A. It is the purpose of these regulations to establish a fee system for funding the monitoring, investigation, and other activities required to be conducted for the maintenance of a safe and healthful environment by the Department of Environmental Quality in accordance with the Louisiana Environmental Quality Act (R.S. 30:2014 et seq.). Fees are required for all permits, licenses, registrations, and variances authorized by the Act.

Clean Harbors Colfax, LLC acknowledges the applicability of LAC 33:V.Chapter 51 and will comply with this Chapter.

CHAPTER 53

MILITARY MUNITIONS

5301. Applicability

A. The regulations in this Chapter identify when military munitions become a solid waste and if these wastes are also hazardous under this Chapter or LAC 33:V.Chapter 1 and the management standards that apply to these wastes.

B. Unless otherwise specified in this Chapter, all applicable requirements in these regulations apply to waste military munitions.

Clean Harbors Colfax, LLC, [CH (CO)], stores and thermally treats military munitions as defined in this section. CH (CO) will comply with the applicable portions of this chapter.

5303. Definition of Military Munitions as a Solid Waste

A. A military munition is not a solid waste when:

1. used for its intended purpose, including:

a. use in training military personnel or explosives and munitions emergency response specialists (including training in proper destruction of unused propellant or other munitions);

b. use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems; or

c. recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges. However, "use for intended purpose" does not include the on-range disposal or burial of unexploded ordnance and contaminants when the burial is not a result of product use;

2. an unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless such activities involve use constituting disposal as defined in LAC 33:V.109.Solid Waste, or burning for energy recovery as defined in LAC 33:V.109.Solid Waste.

B. An unused military munition is a solid waste when any of the following occurs:

1. the munition is abandoned by being disposed of, burned, detonated (except during intended use as specified in Subsection A of this Section), incinerated, or treated prior to disposal;

2. the munition is removed from storage in a military magazine or other storage area for the purpose of being disposed of, burned, or incinerated, or treated prior to disposal;

3. the munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition and cannot reasonably be recycled or used for other purposes; or

4. the munition has been declared a solid waste by an authorized military official.

C. A used or fired military munition is a solid waste:

1. when transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or

2. if recovered, collected, and then disposed of by burial, or landfilling either on or off a range.

D. For purposes of RCRA Section 1004(27), a used or fired military munition is a solid waste and, therefore, is potentially subject to RCRA corrective action authorities under Sections 3004(u) and (v), and 3008(h) or imminent and substantial endangerment authorities under Section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of the range must maintain a record of the event for as long as any threat remains. The record must include the type of munition and its location (to the extent the location is known).

CH (CO) understands and acknowledges the definition for military munitions defined in this section and will comply with the regulations set forth in this chapter as applicable.

5305. Standards Applicable to the Transportation of Solid Waste Military Munitions

A. Criteria for Hazardous Waste Regulation of Waste Non-Chemical Military Munitions in Transportation

1. Waste military munitions that are being transported and that exhibit a hazardous waste characteristic or are listed as hazardous waste under LAC 33:V.Chapter 49 are listed or identified as a hazardous waste (and thus are subject to regulation under LAC 33:V.Subpart 1) unless all the following conditions are met:

a. the waste military munitions are not chemical agents or chemical munitions;

b. the waste military munitions must be transported in accordance with the Department of Defense (DOD) shipping controls applicable to the transport of military munitions;

c. the waste military munitions must be transported from a military owned or operated installation to a military owned or operated treatment, storage, or disposal facility; and

d. the transporter of the waste must provide oral notice to the administrative authority within 24 hours from the time the transporter becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of Paragraph A.1 of this Section that may endanger health or the environment. In addition, a written submission describing the

circumstances shall be provided within five days from the time the transporter becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of Paragraph A.1 of this Section.

2. If any waste military munitions shipped under Paragraph A.1 of this Section are not received by the receiving facility within 45 days of the day the waste was shipped, the owner or operator of the receiving facility must report this non-receipt to the administrative authority within five days.

3. The exemption in Paragraph A.1 of this Section from regulation as hazardous waste shall apply only to the transportation of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to storage, treatment, or disposal.

4. The conditional exemption in Paragraph A.1 of this Section applies only so long as all of the conditions in Paragraph A.1 of this Section are met.

B. Reinstatement of Exemption. If any waste military munition loses its exemption under Paragraph A.1 of this Section, an application may be filed with the administrative authority for reinstatement of the exemption from hazardous waste transportation regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of Paragraph A.1 of this Section. If the adminitrative authority finds that reinstatement of the exemption is appropriate based on factors such as the transporter's provision of a satisfactory explanation of the circumstances of the violation or a demonstration that the violations are not likely to recur, the administrative authority may reinstate the exemption under Paragraph A.1 of this Section. If the administrative authority does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the administrative authority may terminate a conditional exemption reinstated by default in the preceding sentence if the administrative authority finds that reinstatement is inappropriate based on factors such as the transporter's failure to provide a satisfactory explanation of the circumstances of the violation or failure to demonstrate that the violations are not likely to recur. In reinstating the exemption under Paragraph A.1 of this Section, the administrative authority may specify additional conditions as are necessary to ensure and document proper transportation to protect human health and the environment.

C. Amendments to DOD Shipping Controls. The Department of Defense shipping controls applicable to the transport of military munitions referenced in Subparagraph A.1.b of this Section are Government Bill of Lading (GBL) (GSA Standard Form 1109), requisition-tracking form DD Form 1348, the Signature and Talley Record (DD Form 1907), Special Instructions for Motor Vehicle Drivers (DD Form 836), and the Motor Vehicle Inspection Report (DD Form 626) in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the Department of Defense shipping controls shall become effective for purposes of Paragraph A.1 of this Section on the date the Department of Defense publishes notice in the

Federal Register that the shipping controls referenced in Subparagraph A.1.b of this Section have been amended.

CH (CO) does not transport military explosives or munitions off-site. Therefore, this section does not apply.

5307. Standards Applicable to Emergency Responses

A. Explosives and munitions emergencies involving military munitions or explosives are subject to LAC 33:V.1101.H, 1301.G, 1501.C.7.a, and 4307, or alternatively to LAC 33:V.701.

CH (CO) understands explosives and munitions emergencies and the subsequent responses to these emergencies are given exemptions from the requirements of the applicable sections of the LAC 33 chapters addressed above.

5309. Standards Applicable to the Storage of Solid Waste Military Munitions

A. Criteria for Hazardous Waste Regulation of Waste Non-Chemical Military Munitions in Storage

1. Waste military munitions in storage that exhibit a hazardous waste characteristic or are listed as hazardous waste under LAC 33:V.Chapter 49 are listed or identified as a hazardous waste (and thus are subject to regulation under LAC 33:V.Subpart 1), unless all the following conditions are met:

a. the waste military munitions are not chemical agents or chemical munitions;

b. the waste military munitions must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB);

c. the waste military munitions must be stored in accordance with the DDESB storage standards applicable to waste military munitions;

d. within 90 days of when a storage unit is first used to store waste military munitions, whichever is later, the owner or operator must notify the Office of Environmental Services, Permits Division of the location of any waste storage unit used to store waste military munitions for which the conditional exemption in Paragraph A.1 of this Section is claimed;

e. the owner or operator must provide oral notice to the Office of Environmental Compliance by telephone at (225) 763-3908 during office hours; (225) 342-1234 after hours, weekends, and holidays; or by e-mail utilizing the Incident Report Form and procedures found at www.deq.state.la.us/surveillance within 24 hours from the time the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of Paragraph A.1 of this Section that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within five days from the time

the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of Paragraph A.1 of this Section;

f. the owner or operator must inventory the waste military munitions at least annually, must inspect the waste military munitions at least quarterly for compliance with the conditions of Paragraph A.1 of this Section, and must maintain records of the findings of these inventories and inspections for at least three years; and

g. access to the stored waste military munitions must be limited to appropriately trained and authorized personnel.

2. The conditional exemption in Paragraph A.1 of this Section from regulation as hazardous waste shall apply only to the storage of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to transportation, treatment or disposal.

3. The conditional exemption in Paragraph A.1 of this Section applies only so long as all of the conditions in Paragraph A.1 of this Section are met.

B. Notice of Termination of Waste Storage. The owner or operator must notify the Office of Environmental Services, Permits Division when a storage unit identified in Subparagraph A.1.d of this Section will no longer be used to store waste military munitions.

C. Reinstatement of Conditional Exemption. If any waste military munition loses its conditional exemption under Paragraph A.1 of this Section, an application may be filed with the administrative authority for reinstatement of the conditional exemption from hazardous waste storage regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of Paragraph A.1 of this Section. If the administrative authority finds that reinstatement of the conditional exemption is appropriate based on factors such as the owner's or operator's provision of a satisfactory explanation of the circumstances of the violation or a demonstration that the violations are not likely to recur, the administrative authority may reinstate the conditional exemption under Paragraph A.1 of this Section. If the administrative authority does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the administrative authority may terminate a conditional exemption reinstated by default in the preceding sentence if he/she finds that reinstatement is inappropriate based on factors such as the owner's or operator's failure to provide a satisfactory explanation of the circumstances of the violation or failure to demonstrate that the violations are not likely to recur. In reinstating the conditional exemption under Paragraph A.1 of this Section, the administrative authority may specify additional conditions as are necessary to ensure and document proper storage to protect human health and the environment.

D. Waste Chemical Munitions

1. Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under LAC 33:V.Chapter 49

are listed or identified as a hazardous waste and shall be subject to the applicable regulatory requirements of RCRA subtitle C.

2. Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under LAC 33:V.Chapter 49 are not subject to the storage prohibition in RCRA Section 3004(j), codified at LAC 33:V.2205.

E. Amendments to DDESB Storage Standards. The DDESB storage standards applicable to waste military munitions, referenced in Subparagraph A.1.c of this Section, are DOD 6055.9-STD ("DOD Ammunition and Explosive Safety Standards"), in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the DDESB storage standards shall become effective for purposes of Paragraph A.1 of this Section on the date the Department of Defense publishes notice in the Federal Register that the DDESB standards referenced in Paragraph A.1 of this Section have been amended.

CH (CO), at times, stores chemical and solid military munitions for thermal treatment at the facility. These military munitions exhibit hazardous waste characteristics or are listed as hazardous waste under LAC 33:V.Chapter 49 or they are are listed or identified as a hazardous waste. Therefore, CH (CO) will abide by all the applicable requirements of this section.

5311. Standards Applicable to the Treatment and Disposal of Waste Military Munitions

A. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in LAC 33:V.Subpart 1.

CH (CO) thermally treats hazardous waste military munitions as defined. CH (CO) will abide by the applicable requirements of LAC 33:V.Subpart 1.